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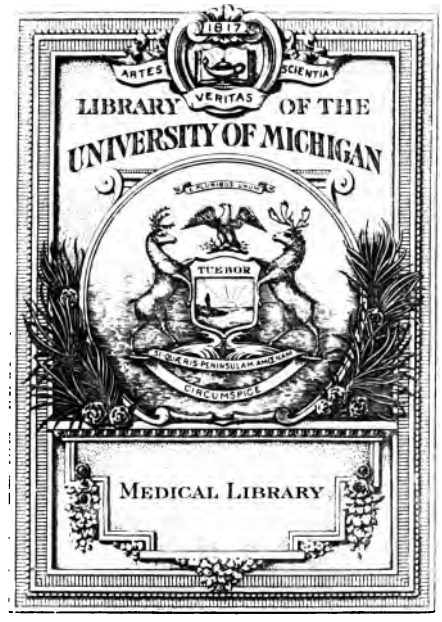
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THE

TRANSACTIONS

OF

The New-Hampshire Medical Society,

(SEVENTY-FIRST ANNIVERSARY)

HELD AT CONCORD, JUNE 3 AND 4, 1862.

CONCORD, N. H.:
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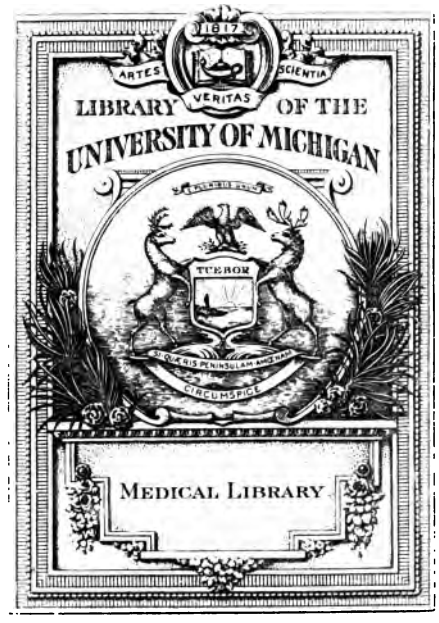
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PROCEEDINGS.

TUESDAY, June 3, 1862.

THE Seventy-Second Annual Meeting of the New-Hampshire Medical Society was held at the City Hall, in Concord, June 3 and 4, 1862, Dr. E. K. WEBSTER, President, in the chair.

The reading of the record of the last meeting was dispensed with.

Dr. Hildreth was appointed Secretary *pro tem.*, and Dr. Hill Treasurer *pro tem.*

The report of the Council was read, and the following named gentlemen, being recommended by the Council, were unanimously elected Fellows of the Society:

Charles F. P. Hildreth, M. D., Concord.
Passmore Treadwell, M. D., Concord.
Frank P. Foster, M. D., Concord.
George Montgomery, M. D., Gilmanton.
George E. Spencer, M. D., Franklin.
Hubert Sleeper, M. D., Grantham.
Hadley B. Fowler, M. D., Bristol.
Jefferson Smith, M. D., Dover.

Communications were received from the Massachusetts State Medical Society and the Rhode-Island State Medical Society, sending delegates to this Society; whereupon it was voted that the delegates be received, and invited to sit with the Society, and partake of its hospitalities.

Drs. Hoyt, of Framingham, and Savory, of Lowell, delegates from the Massachusetts State Medical Society, and Dr. Batchelder, of Knightsville, delegate from Rhode-Island State Medical Society, were introduced by Prof. Smith, of Dartmouth College.

The delegates severally addressed the Society, and gave very interesting accounts of the associations they represented.

Drs. Buck, Crosby, Clough, Carr, Whittemore, Shackford and Shannon were appointed a committee on examination of patients.

Drs. Hill, Currie and Moore were appointed a committee to audit the Treasurer's account.

Drs. Smith, Abbott, Palmer, Bean, Bunton, Wight, Crombie, Stackpole and Robinson were appointed a committee on nominations.

At 12 o'clock the President, Dr. E. K. Webster, delivered the Annual Address.

Report of the Committee on Obstetrics, by Dr. Fitch, was read, and referred to the Committee on Publication.

A committee of three were appointed to make investigation with regard to the Bartlett fund, consisting of Drs. Hill, Oliver and Robinson.

At 2 o'clock the Society adjourned, to meet again at 3½ o'clock P. M.

AFTERNOON SESSION.

Met according to adjournment, the President in the chair.

The Committee on Nominations reported, and the following named gentlemen were elected officers of the Society for the ensuing year:

PRESIDENT:

CHARLES P. GAGE, M. D., Concord.

VICE-PRESIDENT:

PAUL A. STACKPOLE, M. D., Dover.

SECRETARY:

NATHAN CALL, M. D., Boscawen.

TREASURER:

LEVI G. HILL, M. D., Dover.

COUNCILLORS:

A. H. Robinson, M. D.,	A. F. Carr, M. D.,
S. Campbell, M. D.,	L. F. Lock, M. D.,
T. Sanborn, M. D.,	J. F. Hall, M. D.,
C. H. Shackford, M. D.,	C. Palmer, M. D.,
J. C. Hanson, M. D.,	J. W. Lougee, M. D.,
W. H. Thayer, M. D.,	G. A. Phelps, M. D.,
S. Cummings, M. D.,	J. H. Crombie, M. D.

CENSORS:

G. Montgomery, M. D.,	S. Bunton, M. D.,
G. W. Manter, M. D.,	C. K. Kelley, M. D.,
C. B. Willis, M. D.,	G. P. Greely, M. D.,

T. H. Currie, M. D.

DELEGATES TO DARTMOUTH COLLEGE:

W. D. Buck, M. D.,	L. G. Hill, M. D.

ORATORS FOR 1863.	SUBSTITUTES.
L. W. Peabody, M. D.,	N. W. Oliver, M. D.,
N. Tolles, M. D.	L. C. Bean, M. D.

The standing committees were appointed as follows:

On Surgery—W. H. H. Mason, M. D.

On Practice of Medicine—S. M. Whipple, M. D.

On Epidemics—W. H. Thayer, M. D.

On Publications—N. Call, M. D., C. F. P. Hildreth, M. D.

On Arrangements—Drs. C. P. Gage, L. G. Hill, J. Smith, P. A. Stackpole.

Voted, To send two delegates to each of the New-England State medical societies.

The following named gentlemen were appointed delegates to the several societies:

To Massachusetts State Medical Society—Drs. Albert Smith, A. H. Robinson.

To Rhode-Island State Medical Society—Drs. F. P. Fitch, S. Bunton.

To Maine State Medical Society—Drs. Noah Martin, P. A. Stackpole.

To Vermont State Medical Society—Drs. G. B. Twitchell, S. W. Whipple.

To Connecticut State Medical Society—Drs. J. P. Whittemore, C. F. P. Hildreth.

Dr. Abbott announced the deaths of Drs. Artemas H. Carr and Luther V. Bell; after which the President appointed Drs. Abbott, Smith and Carter to draft appropriate resolutions.

Dr. Webster introduced the following resolution:

Resolved, That a committee be appointed to investigate the subject of "Locality as a Cause of Consumption" in New-Hampshire.

Dr. Webster was appointed on that committee.

An oration was delivered by Dr. J. P. Whittemore, and referred to the Committee on Publication.

Voted, That the Secretary be instructed to inform all gentlemen of their election to perform various duties.

The committee to audit the Treasurer's account made their report, and it was accepted.

The delegates to Dartmouth Medical College made their report. It was accepted, and referred to the Committee on Publication.

An interesting paper from Dr. Noah Martin, upon "Hypertrophy of the Nymphæ," was read by Dr. Stackpole, and referred to the Committee on Publication.

Adjourned to 8 o'clock, Wednesday morning.

MORNING SESSION.

Wednesday, June 4.

Met agreeably to adjournment, the President in the chair.

Resolved, That the Treasurer be and he hereby is instructed to address a brief circular to each delinquent

Fellow, stating the wants of the Society, and asking immediate payment of the amount due.

The committee appointed to draft resolutions relating to deceased members, made their report, and it was referred to the Committee on Publication.

Resolved, That the next Annual Meeting of the New-Hampshire Medical Society be held at Dover, on the fourth Tuesday of June, 1863.

After spending much time in discussions and reports of cases, which were highly interesting and beneficial, the Society adjourned.

ANNUAL ADDRESS.

BY E. K. WEBSTER, M. D., OF BOSCAWEN,

PRESIDENT OF THE SOCIETY.

GENTLEMEN—The return of this anniversary, and the official position which, by your kind regard, I have the honor to occupy, impose upon me the obligation to address you, at this hour, upon some subject connected with the interests of our profession. Could I have consulted my own inclination I would not have occupied one moment of the time to which your sessions are unavoidably restricted. Conscious as I am of my own inability, I can hardly hope to say any thing that will interest, much less instruct you; therefore fain would I be still, and leave the time to be more profitably occupied, but I must not disregard the precedent that has been established.

On occasions like this it has been customary to pause, and, like the traveler in his journey, survey the pathway we have trod. May we, not inappropriately at this time, avail ourselves of this our resting place, not so much to look back upon the past, but to glance forward on that which is still before us, and contemplate the interesting future; a future, whether contemplated in reference to ourselves or our country, big with momentous results.

If there is any profession or any class of men, the very nature of whose pursuits tends to educate them to an unselfish regard for the interests of their fellow-men, it is that to which we have the honor to belong. We by no

means claim for ourselves exemption from those imperfections of motive which find some supporting soil in every human heart. Many, undoubtedly, enter our ranks with designs below the high standard to which they should aim, and unworthy the bright examples which have been set for them by the long line of good physicians whose benevolent lives have adorned the profession. But although some may enter thus unworthily, their daily duties have the direct effect to cultivate the better and nobler part of their nature. The mere selfish greed of gain, and an unscrupulous ambition, find not their appropriate conditions of growth in the heart of him whose business is at the bedside of the sick and suffering, and whose thoughts and studies must be given mainly to the best methods of baffling the persistent assailments of the cruel intruder — disease. I say *intruder*, because it has no business with an organism so curiously and wondrously made as these bodies of ours; a mechanism so perfectly adapted in all its parts to make its possessor happy, and to execute the plans of its benevolent Designer. It has no right here. It came into the garden with that malicious interloper, sin, a thief and a robber:

> "And nature from her seat gave signs of woe"

at the presence of the Great Destroyer.

True, our kind Father may teach us, by the wonderful chemistry of faith and patience, to extract good from this terrible evil, and the physician is the honored minister, and should be the imitator of the Great Physician who came to repair the infinite damage, and to offer the remedy by which both body and soul may be made new again. Then, of all men, the physician should be a *good* man. His pursuits have a tendency to make him such. Whatever conduces to make good men must also tend to make good citizens and true patriots. Hence, no where can we look more confidently for efficient aid in sustaining every good enterprise in any community than to

the educated physicians, and no where in the land can we find firmer loyalty and greater willingness to make sacrifices to sustain our government, with its noble institutions, than among them. For the truth of this we might, did time permit, refer to bright examples all along in the history of our government and our country; from a Warren, who bravely fell on Bunker Hill in defense of liberty, down to the noble band of brethren now engaged on the field of strife in defense of the blessings and privileges bequeathed us by our fathers.

It may not, then, be out of place to consider, for a short time, the relations of the medical profession to our country and the war; to note what we are giving and what we are gaining.

It is said that the recent great flood in California, which covered with its devastating tide millions of acres of the richest lands; which swept over and almost swept away whole cities and towns; the relentless waters, like the frogs of Egypt, creeping unbidden into the very bedchambers, and leaving their slime in the pleasant parlors, and over the choice furniture of thousands of homes, destroying many lives, and the accumulated property of years—it is said that this great calamity left some compensation for itself in the quantity of gold brought down by these very waters from the mountains.

A desolating tide of war, born of a most iniquitous rebellion, is sweeping over our land; coming, alas, into thousands of happy homes with its inexorable demand for fathers, husbands and brothers, prostrating the prosperity of a nation, destroying thousands of fortunes, and leaving behind its weight of debt, taxation and agony of heart, which many years can not remove.

Will this great national calamity leave any good results as compensation for this dreadful loss? Out of all this confusion will there come a better order? In the sad accumulation of evils and sorrows that war must leave,

will there be any richness out of which may be produced a harvest of golden grain for time to come? Are we, as a nation, casting bread upon the waters, which we shall find again, multiplied a hundred fold?

To all these questions it is my firm conviction that we may return an unqualified affirmative. This deep furrowing of the nation with the ploughshare of the sword; this sowing broadcast the choice seed of the land; this watering with the best blood of thousands of patriot hearts; this stirring of the great soul of the people to its very depths, can not, must not, be in vain. Out of it all must spring in the heart of the nation a deeper sense of the value of the privileges we possess, and a more jealous regard for the rights of every man. The great principles of liberty which have been struggling for the mastery, inch by inch, through blood, ever since the barons extorted from King John the Magna Charta at Runnymede, down through a hundred battle-fields, to our own Declaration of Independence—these principles must, by this war, take another step forward, make another advance into the convictions and hearts of men, and become more firmly established in this land, and in the old nations of Europe.

This war has been justly called a sublime national education. And here, as we look down the years, a splendid vision of rich and ripening fruits, bending the branches of our spreading national tree, comes up before the mind. It is a tempting sight, and we should love to linger and gaze upon the broad and glowing picture, and in anticipation pluck and eat of the blessed fruit, now rapidly ripening for the generations yet to come.

But, pleasing as it is, we must not dwell upon this *general* view. Let us look, for a short time, to see what we, as a profession, are doing in connection with this war—what we are contributing to the general good, and what benefit we are likely to reap.

Other professions and other departments of science will gather up and record their gains. Let us do the same, that we may hand them down to those who will come after us, who, we trust, will have no such opportunity to reap from such a field.

In one respect the position of the army surgeon is both pleasant and important. His work is not confined to those who are actually sick or wounded, but to the constant effort to prevent disease, and to prove what can be done by the carrying out of wise sanitary rules. In his field of practice at home the physician can do but little in the way of prevention of disease, and he often finds his most anxious endeavors at cure thwarted by ignorance, self-will and superstition, while he must bear the odium of a failure. How many of my brethren know too well that very many valuable lives are sacrificed, and their own reputation unjustly compromised, temporarily at least, by their want of ability to carry out their own ideas.

But in the camp and the military hospital the army surgeon has the power, not only of putting forth his precepts, like the preacher, but of enforcing them in the daily practice of his whole parish. He can establish and maintain the regime which both science and common intelligence, not to say common sense, dictate to be wise. In this view we can readily see how his ideas will become wrought into the minds and habits of the men.

It is pleasant to look at the army as a great school, and on our brethren there as the teachers, in one branch at least, and that a most needful one, which they will find abundant occasion to use, even if all swords should be beaten back to plough-shares, and if nations should learn war no more.

That which the soldier and the *man* is thus taught, is the science of life. Ideas, of which he was never before possessed, are introduced into his mind. New views of self-denial, and of his own responsibility for his physical

condition, will take the place of utter carelessness and ignorance. He will learn thoroughly the lesson that many things that he had previously considered as among the necessaries of life are but hurtful luxuries, which enfeeble the body and induce disease. Self-denial, thus learned, will be the parent of many virtues. It will beget a nobler manhood, and will cause thousands to feel that they have the ability within themselves to break from the chains of self-indulgence, and to do great things. This is the teaching and this the work, to a great extent, of the physicians in the army; and this work will not be limited to the camp.

The American citizen, whether as soldier or artizan, as farmer, or builder, or engineer, is a reader, a thinker, and a propagator of his opinions. He is a practical man. The ideas which he gains he endeavors to apply to the business of life. He also communicates them to his neighbor. Thus these thousands who have been educated by the surgeon under the discipline of the camp, when disbanded will carry their new ideas with them to their thousand homes all over the land, being more skillful themselves in the methods of warding off disease, and more intelligent and ready co-workers with their physicians.

That they will remember what they were taught in camp we may believe, because it will be associated with a portion of their lives, the events of which they can no more forget than they can forget their own existence. These events they will never cease to recount to their children and grandchildren, as our fathers and grandfathers have done before us. In every village and hamlet, in the coming years of our national prosperity, will be found those who, to the rising generation, will, with shouldered crutch, "tell how fields were won." There the surgeon will be remembered—their best friend and sympathizer in those times of trouble. His ideas and teachings will, we hope, go down with the stories of more exciting events.

In this educating power of our brethren in the army we may have the more confidence, when we call to mind their numbers, and the favorable circumstances under which they act.

There are probably now in the service more than two thousand five hundred surgeons and assistant surgeons; the greater part of them men of education, experience and moral worth. Many of them we know as having left positions of great usefulness and honor, and as being capable of holding their places in the front rank of the profession. These educated men are in constant and intimate association with their regiments, isolated from the rest of the world, and much more completely under their influence than the same number could possibly be in any other situation.

Can it be that the influence of such training will all be dissipated when these thousands are scattered to their homes? Can it be that in these, returned from a school like this, will be illustrated the truth of the lines—

> "God and the doctor we alike adore,
> But only when in danger, not before:
> The danger o'er, both are alike requited;
> God is forgotten and the doctor slighted?"

We trust not.—Nay, rather, will they not, with Pope, in his "Imitations of Horace," say,

> "Weak though I am of limb, and short of sight;
> Far from a lynx, and not a giant, quite;
> I'll do what Mead and Cheselden advise,
> To keep these limbs, and to preserve these eyes."

It is a cause of joy, and an encouraging sign, that the charlatan and pretender is, in great measure, left out—not reckoned in among those who are called to guard the health of the army. Those that are needed are from the ranks of the regularly educated physicians.

Another effect of the war, closely allied to the one just mentioned, and which, I trust, it may not be out of place to introduce here, is the turning of the attention and the

capabilities of woman to the work of nursing the sick. In such an effect, none will rejoice more than the members of our profession, who know full well what an effective ally in the sick room is the judicious, intelligent woman, with her quick eye, her ready hand, and her sympathetic heart, fitting her so perfectly to execute his own designs.

To be sure, the care of the sick has ever been considered woman's mission; and ever ready and willing has she been to perform it, with a self-sacrificing devotion which has made her an angel of mercy. Wherever is sorrow, there is woman with an effort to relieve. But in every community the want is felt of a greater number of well trained nurses, who may be relied upon in every emergency. For the want of them, how often are the best efforts of the physician rendered useless.

The Crimean war brought out the talent of a Florence Nightingale, and made it available, not only to the poor soldiers in the hospitals of Scutari, but to the world. For what a power has been her blessed example, and, we may say, her precept, too! Beloved and almost worshiped by thousands who knew her devotion in their behalf, many a man, hard in exterior, but tender at heart, has turned to kiss her shadow upon his pillow, as she passed on her errand of mercy.

Like her, Miss Dix, and a host of devoted females are, at the present time, doing their self-denying work of love for our sick and wounded soldiers in the hospitals. Noble examples these for thousands of our countrywomen who languish for want of a worthy object in life. The time ought surely to come when Catholic countries shall not excel the Protestant in furnishing "Sisters of Mercy." The physician who knows the magic power of the mind over the body, appreciates the value of the efforts of such co-laborers. He knows, too, that, if in every community such were found, much of the opprobrium which now rests upon the healing art, for its uncertainty and ineffi-

ciency, would be removed. If the supply of this want should be one of the fruits of this war, the people and the profession will have reason to rejoice.

At such a time as this, when true patriotism and unselfish devotion to the general good are estimated at their worth, the nation may turn to the ranks of our profession for some of its purest examples. Their names may not now or hereafter ring out as loudly in the ear of the nation; they may not blaze as brightly upon the banners of grand processions, or be inscribed as conspicuously in wreaths of green over triumphal arches, as those of other heroes whom the nation justly delights to honor. His work is one which is less attractive to the public eye—more unobtrusive and quiet; still the army surgeon is known and read of all, as the minister of mercy to friend or foe. The eye of the sufferer, whether loyal or rebel, turns to him in confidence, as to a friend. He is not excused from posts of danger, and he does not shrink from any exposure when duty calls. He accepts months of imprisonment rather than desert his trust. But he does not derive his stimulus to exertion from the hope of glory won by daring deeds in the field. No vindictive feelings influence him. He does not listen after a battle to hear his name heralded among those who have won renown, and are promoted to higher rank. He depends not, for his inspiration to noble deeds and patient toil, upon the magnetism of martial music, the magic power of the words and presence of his commander, or the irresistible impulse of the charge and the battle-cry. Content with devoting his best energies to the relief of the suffering, and thus to the good of his country, his patriotism shines unstained, and with as small a portion of alloy as may be detected in human motive. He is not urged on by the almost frenzied excitement which sustains those who actually participate in the bloody strife. He deals with sad results. He remains to look after and

repair, as well as he can, the wrecks which are scattered along the path of the advancing army, and which all but he and a few others so soon forget in the joy of victory or the shame of defeat. It is the glorious peculiarity of his profession that, while ambition, in its ordinary and most applauded paths, plays the part of the *destroyer*, and wins glory at the expense of human life and happiness, he and his, with a more exalted civilization, a nobler heroism, have ever *sought to save*. Next to the highest of all human courage, if, indeed, it be merely *human* — that of the martyrs of religious truth — the courage of the physician, whether on the battle-field or in the lazar-house—the courage of science and humanity—is most sublime, and best entitled to the *clarum et venerabile nomen*. The vulgar courage of the warrior, under the base stimulus of passion, or the low greed of applause, can hardly be compared to the noble intrepidity of the surgeon, who gleans, in the ruthless and red-handed reaper's path, the leavings of the battle; and still less with the hero of the hospital, who encounters the grim antagonist in the horrid silence and gloom of pestilence, ministering to the suffering and the perishing, unobserved, it may be, and unmarked, save by the eye that never slumbers, and remembered only by Him who alone can reward.

Thus his nobler nature is cultivated, and he becomes more like the Great Physician, whose whole life-work was one of love and benevolence to the suffering, although his enemies.

And what our brethren in the field are doing and learning, we at home partake of and fully sympathize with. The ennobling leaven spreads, with its blessed influence, to every medical school, to every State or district society, to every physician who goes alone on his round of daily duty, beckoning all upward to a higher plane and to a nobler enthusiasm.

On the eve of the battle of the Pyramids, Napoleon

exclaimed, "Soldiers! from the height of yon monuments forty centuries look down upon you." Gentlemen, from the heights of past ages, countless worthies of our godlike profession point and beckon to a goal more elevated than ever attracted legislators and conquerors, Solons and Cæsars.

But I am reminded that there is a period in *official* as well as *natural* life, when

> "They say, the tongues of dying men
> Enforce attention, like deep harmony."

That period has now come to me, and I would employ its last moments in earnest exhortation to press forward to the consummation of your enterprise; under a solemn conviction that, in protecting the interests, maintaining the honor, advancing the knowledge, and extending the usefulness of the profession of medicine, you are sustaining the dearest concerns of society, of your country, and of mankind.

Tire not, then, my brethren, in the luminous race before you; grow not weary amid the toils, and shrink not from the high responsibilities attached to the practical duties of the profession. Discharge all your duties with fidelity to your high calling, to your country, and your God. Then, when the evils and turmoils of life are over, your mortal existence ended, and you passed away, be this your epitaph:

> "——— They
> Have given their honors to the world again,
> Their better part to Heaven, and sleep in peace."

REPORT OF THE COMMITTEE ON OBSTETRICS.

DISAPPOINTED heretofore in repeated efforts to obtain from Fellows information essential for reports directed by this Society, your Committee on Obstetrics felt himself reduced to the necessity of either remaining silent on this occasion, or of furnishing such facts and reflections as could be gleaned from his own limited observations. The latter course, not without hesitation, has been adopted.

The purpose, then, of this paper will be to present a brief analysis of recorded cases of parturition, which were attended in some half a score of agricultural towns in the central portion of Hillsborough county, with such remarks as appear interesting, including observations upon the use, in this branch of the profession, of ergot and anæsthetics. It may be proper to add, that the records from which are taken the facts and numbers below stated, extend, with occasional interruptions, through many consecutive years of the writer's professional experience; and, as the condition of the people furnishing these observations does not differ materially from that of the great majority of our population, the results here presented may indicate, to some extent, the progress of obstetrical practice throughout the State. Moreover, the proportional frequency of deviation from natural labor here noted and the averages attained, though depending upon numbers too inconsiderable to be conclusive, may, in the unfortunate neglect of all vital statistics in this commonwealth, not be wholly without interest.

The memoranda to which attention is now invited furnish a record of six hundred and fifty-nine cases of labor, and the birth, at or near the full time, of six hundred and sixty-five children—three hundred and sixty-six males,

and two hundred and ninety-nine females—including six twin cases of seven males and five females.

The weight of four hundred and twenty-five infants—two hundred and thirty males and one hundred and ninety-five females—was ascertained generally within the first twenty-four hours after birth, and averaged, individually, males, 8 ℔ 9 oz.; females, 8 ℔ 4 oz.—the largest, 13 ℔ 4 oz., the least 4 ℔ 4 oz. (one of twins, its fellow 6 ℔ 4 oz.)—in the ordinary first infantile dress, which was found to weigh 1 ℔ 3 oz., leaving, as the average weight of males, nude, 7 ℔ 6 oz.; females, 7 ℔ 1 oz.

Still Births.—Among the six hundred and sixty-five recorded births, twenty-eight were still-born. Of these, ten were dead before the commencement of labor, from injury to the mother, or other causes; four were dead at birth, or were incapable of respiration from fœtal malformation—monstrosity;* and fourteen were still-born, from accidents or conditions of labor: viz., four from disproportion between the size of the fœtus and the maternal passages; one, funis presentation; two, face presentation; three, breech; two, footling; one, flooding, with forceps delivery—fatal to both mother and child; and one, turning for convulsions—fatal to both.

Presentation.—The marked and dangerous malpositions of the child in these six hundred and sixty-five births, were:

Face	presentation,	18, two of which	were	still-born.
Breech	"	8, three	"	"
Footling	"	3, two	"	"
Knee	"	1.		
Funis	"	3, one	"	"

* Among these was an instance of nature's surgery rarely witnessed—the amputation of one of the lower extremeties of a *fœtus in utero*. The division was complete; and the divided surfaces at the points of separation, not only of the stump remaining attached to the body, but also upon the portion wholly detached, were nearly closed or healed over. This case, exhibiting also extensive deformity of the head, was published in the American Journal of the Medical Sciences, vol. 18, p. 90.

Labors with feet and breech presentations were fatal to the children in very large proportion—five in eleven cases—death resulting in every instance from pressure upon the funis during the unavoidable delay in the delivery of the head.

It will be noticed that the portion of face presentations is large, compared with the statistics of such labors furnished by the latest publication in this country on Midwifery*—very large. But most practitioners will recollect within their own observation experiences as remarkable. Quite equal may be accounted the fact that, among these six hundred and fifty-nine labors, there was not an instance of *placenta peria*, nor has a single case occurred during the writer's entire practice.

Guided by the almost unvarying *dicta* of the books, that nature is competent to effect delivery in face presentations, interference was seldom attempted. When the fœtal head is small relatively, this rule will be found satisfactory, delivery being accomplished with safety to both mother and child. But in the eighteen cases here reported, though the portion of still births is not large, labor almost uniformly was exhaustingly tedious and painful, if not otherwise dangerous to the mother. In one case, where the child was relatively large, delivery by the natural forces was found impossible, and craniotomy was resorted to; but the woman suffered badly from sloughing of the passages from long continued pressure.

Troubled by such results, modes of relief were eagerly sought, and, had similar cases occurred under favorable circumstances within the last few years, the attempt would have been made with considerable confidence to convert face into vertex presentations. Able writers for the medical journals state that this may be readily effected if the attempt is made at the proper time; that is, the uterus should be dilated, or easily dilatable, and the liq.

* Principles and Practice of Obstetrics; by Gunning S. Bedford, M. D.

amnii but recently discharged. A writer, Dr. Martin, of New-York, in the American Medical Times, vol. iv., pp. 21 and 35, has furnished a very clear account of the cause, mechanism, and mode of treating these labors. He affirms that this presentation *always* has its origin in lateral obliquity of the uterus; a condition which is noted as present in most of the eighteen cases here reported, and, as its importance was not formerly understood, might have escaped observation, or been omitted in recording the others. When the obliquity is present, the contractions of the uterus at the commencement of labor, acting in the direction of its long axis, instead of causing the vertex to enter the pelvis first, force the forehead into the superior strait, in most cases in the direction of the right or left acetabulum, the fœtal chin being separated to some extent from the breast. As the contractions proceed, forcing the forehead onward, the chin departs still farther, and is carried toward the foramen ovale, while the occiput is at or near the brain of the pelvis, in relation to the sacro-iliac synchondrosis, right or left, according to the presentation.

To rectify this mal-position, Dr. Martin directs that, the uterus being dilatable, the vertex be brought down by one blade of the forceps, or, what he prefers, by hooking the fingers upon the occiput; and turned forward toward the foramen ovale; the obliquity of the uterus being at the same time removed by external manipulation. If now the head is supported in this position till strong pains occur, the vertex will be turned under the arch of the pubis, and delivery completed in the most favorable manner. Doubtless there are gentlemen present practically familiar with this operation, who can inform the society whether this procedure is generally practicable and certain in its favorable results, as represented by Dr. Martin.

Craniotomy was practiced in two labors, one a face presentation; in both with safety to the mother.

Forceps were employed in these 665 births but three times; in one case of flooding, chiefly before the commencement of the labor, and suspension of uterine action, fatal; once, disproportion between the size of the fœtal head and maternal passages; and once, convulsions.

Adherent Placenta. In six instances this complication required the introduction of the hand. All recovered favorably.

Hour-glass, or irregular annular contraction of the uterus, was met with in three instances; two upon the placenta, which in each was removed by the introduction of the hand with safety to the mother, and one upon a full-sized fœtus, long dead, and so decomposed as to allow the joints to be readily separated. This case, though hastily narrated to this Society several years ago, is so unusual as to merit in this connection a brief repetition.

The patient, a vigorous woman, aged 42, having experienced one successful pregnancy eight years before, was seized, as she believed, with symptoms of commencing labor, and sent for her physician. The pains, however, soon subsided, recurring with slight force only occasionally during the four succeeding weeks; but after the first attack the woman perceived no fœtal movements, and in a few days the breasts became tender and were partially filled. Her appetite failed, and there was progressive debility, with troublesome nervous derangement, and five days before the patient was seen by me, a fetid, iron-rust colored discharge made its appearance from the vagina. The pulse was one hundred, and feeble at my first interview.

On examination, a fœtal hand was found projecting from the os uteri, which was easily dilatable. The indication to turn and deliver was clear. The patient, being etherized, the hand was readily passed within the os uteri,

and along the child's arm to the shoulder; at which point was encountered an annular contraction of the uterus, so firm and unyielding that a gentleman of the largest medical experience in the county, then present, was wholly unable to penetrate the stricture, and relinquished the effort, himself exhausted, bringing away only the arm, which, from the advanced decomposition, readily separated at the shoulder joint. Waiting two hours, during which the patient slept quietly, the attempt was renewed under the full effect of ether; and, after a persevering effort of more than an hour, the stricture, which seemed almost of iron firmness, was so far dilated as to permit the feet to be seized, and the body to the thorax brought through. Here progress was completely arrested, and the parts were separated by the fingers, and removed in fragments. The head remained; and, after diminishing its size by sliding the bones of the cranium upon each other, rendered practicable by the decomposition, was brought through the stricture with great difficulty, by hooking one finger in the foramen magnum, and another in the mouth. The woman had a rapid and complete recovery.

Convulsions attended four pregnancies, with fatal result in two. In the first case the paroxysms occurred before the commencement of labor, and the fatal result was reached without any appearance of uterine contractions. This is a case of great interest. It occurred in a stout, vigorous woman, aged 34, at about the eighth month of a first pregnancy, without any indications of commencing labor. The woman was exceedingly plethoric, having experienced a voracious appetite, which she indulged, under the impression that she must deny herself nothing she desired. The husband stated that she ate, the day before the seizure, at dinner, enough for three men; in fact, he added, "it appeared as though she could eat a whole turkey" (it was Thanksgiving). On the afternoon

following this indulgence, having again dined on similar material, the patient was attacked by intense pain in the region of the stomach, soon followed by nausea and vomiting of its contents, with partial relief of distress. But the pain, now referred to a point beneath the lower end of the sternum, soon returned with constantly increasing severity, and was scarcely at all relieved by a large abstraction of blood from the arm, or other treatment, till in the evening she suddenly complained of pain in the head, and was immediately seized by a protracted convulsive paroxysm. This was repeated in about thirty minutes, and was now followed by stertorous breathing and entire loss of consciousness; and the convulsions, uninfluenced by another very large bleeding, cold to the head, and other treatment, continued to recur for twenty hours, ending only in death. The os uteri remained undilated; and, although at a late period in the case the membranes were ruptured, resulting in a continuous but moderate discharge of fluid, there was no effort of that organ to throw off its contents.

This case exhibits in a remarkable degree the effect of obstructed return of blood from the head during convulsion. Notwithstanding the large and repeated depletion from the arm, after the few first paroxysms blood flowed from the mangled tongue and mouth in large quantities, deluging the bed, and did not abate till near death. Nothing at that time at command appeared to retard the onward progress of the disease; whether chloroform, had it then been in use, would have controlled a case so violent is doubtful.

Though unusual in occurring without the anticipated or actual disturbing influences of labor, there can be no doubt that this terrible attack resulted from a condition of the system induced by pregnancy; and the cause appears directly traceable to the great activity of the digestive organs, excited to extreme energy by the new

life within the uterus, which led to habits of indulgence at length greatly disproportional to the wants of the system. This condition has frequently fallen under observation in the progress of pregnancies, chiefly in *primi paræ*, and by timely advice and warning the inordinate appetite, very generally for animal food, restrained, averting in all probability serious disaster.

In the second case of puerperal convulsions, a first labor, though the woman had experienced a previous early abortion, delivery was effected by the natural powers, the paroxysms being much diminished in frequency and force by bleeding and chloroform. The convulsions occurred three times after delivery, and were then, the bowels having been freely evacuated, effectually arrested by a full opiate. Mother and child recovered well.

In the third case, a *primi paræ*, plethoric convulsions of frequent recurrence and terrible severity supervened early after the commencement of labor, and were uninfluenced by bleeding or other treatment, though chloroform was not tried — being in a distant town it was not at hand. There was coma, with complete insensibility; and, as the convulsions continued with rapidly increasing exhaustion, while the uterine contractions became more and more feeble, the head remaining still at the superior strait, the only chance of relief appeared in delivery by turning. Accordingly, as soon as the uterus was sufficiently relaxed, this was effected, and a dead child and the placenta removed without difficulty. On thus relieving the uterus the paroxysms were suspended, but without returning consciousness. The patient was left in the care of another physician; who reported that the convulsions soon returned, attended in the intervals by a form of mania, with rapid exhaustion and death.

In the fourth case, also a *primi paræ*, convulsions commenced after labor had been for some hours in progress. The paroxysms were frequent and severe, but after bleed-

ing were markedly diminished by chloroform. As, however, the contractions were insufficient to cause any farther advance of the head, delivery was completed by the forceps; and after the removal of the placenta, which came away readily, the convulsions ceased. Both mother and child did well.

Ergot. Whoever of us has occupied the field of medical observation during the last quarter of a century must have noticed many changes of confidence in remedies, no less than of views upon pathology and the treatment of disease. This is especially true in midwifery. At the commencement of that period, under the teachings of Dewees and the medical schools, arterial excitement, affecting the parturient woman — often wholly emotional in its origin — and tardy relaxation or rigidity of the uterus and the soft parts below, were each to be remedied by free abstraction of blood. Now we know that such excitement and all disturbing apprehensions may be allayed as with a charm by a few inhalations of chloroform; and rigidity, so annoying both to the patient and attendant, from the delay it causes, can be overcome with greater facility and far less danger by a judicious use of antimony, or a combination of that article with an opiate. Some now present will recollect the earnestness with which, many years ago, that treatment was advocated before this society by our late eminent Fellow and President, Dr. Howe; and extended experience fully confirms its claims to the confidence he endeavored to inspire.

Not less has been, or should be, the change of opinion respecting the utility and safety of ergot in labor. During the earlier years of the records whence these remarks are drawn, that uterine stimulant was employed in cases considered proper for its use, and such was then the practice generally of the best informed physicians of the neighborhood. But it was soon perceived that, after the ad-

ministration of ergot, the proportion of children born relaxed and asphyxiated, if not dead, was large. For a time this was attributed to the long continued obstruction of the fœtal circulation, induced by the violent and continuous action of that peculiar uterine stimulant, and seemed only to require more care in withholding it when unusual obstructions to delivery existed. Cases soon occurred, however, which would be appropriate in this connection, did time permit their relation in full, that appeared to show poisonous effects upon the child, independently of compression. In one instance, where the membranes were unnaturally firm, the child was born immediately after the escape of the liq. amnii, which was in ordinary quantity. Here, though the spasmodic contractions peculiar to the action of ergot were manifest and strong, there could have been no compression upon the fœtal circulation, yet the child was born dark, profoundly asphyxiated, and with the extreme muscular relaxation so common with children delivered under the action of ergot. The child was resuscitated, but with great difficulty.

These and similar facts could not fail to impress the mind. The action of ergot appeared certainly injurious to the offspring;—was it favorable to the mother? By its use, labors of languid progress could sometimes be brought to an earlier close. But when no unforeseen obstacle to speedy delivery was encountered, the violent spasmodic convulsions, characteristic of its action, were not unfrequently attended by great suffering, rendering it doubtful whether the gain in time was worth the penalty. When, on the contrary, progress was arrested or materially delayed (a contingency upon which the highest skill in determining the amount of resistance to be overcome must often be at fault), the struggle from the continuous uterine erethism was generally terrible, endangering the integrity of the uterus and connected passages; in many cases inflicting injury that must delay recovery, if not

serious or fatal ruptue. For these reasons, ergot must be regarded as an agent which no amount of experience or judgment can safely wield; and a somewhat extended observation has led to the conclusion that such an agent is not needed in labor. A more natural and satisfactory, and, in the majority of cases, sufficient stimulant, is always at the command of the intelligent practitioner. It is only necessary that he, by his conversation and demeanor, banish apprehension and encourage in the patient and attendants cheerful expectation of success in due time, to induce all the energy and force that is desirable or safe.

With such impressions respecting the effects of ergot, and the necessity for its use, its employment in midwifery was early discontinued, except for a single object: where, from previous knowledge of the patient, or otherwise, hemorrhage may be expected after delivery, it is a medicine relied upon with great confidence, and for this purpose is best given as the head emerges from the external passages. These views, it is gratifying to know, are in harmony with the best recent authorities, and yet ergot is still employed, with a recklessness truly astonishing. A graduate of one of the Philadelphia medical schools lately, without having even attempted to ascertain the presentation, administered the drug in quantities to effect its powerful, continuous contractions, when he made the discovery that a fœtal arm had passed into the vagina. The child proved of full size, and was, by the skill of an experienced physician, who came to the rescue, delivered, with great difficulty, by turning, after having quieted, in some degree, the uterine contractions by large opiates. The woman, from resulting injuries, was scarcely able to sustain the erect position for more than a year, and will, probably, never fully recover.

Anæsthetics.—Whatever may be said under this head will have reference to that class of remedies as employed in midwifery only, and will, as on other points, be indi-

cated by personal observation; of course attempting nothing like a general consideration of the subject. And with the very limited experience of a country practitioner, it would not have been alluded to at all, but for the strange diversity of opinion and practice on this matter, which renders a comparison of views upon it highly expedient, for the purpose of attaining some settled mode of action.

The first attempts to relieve parturient suffering, and facilitate labor by anæsthetics, were made with ether. The action of that article, though not always prompt or easily maintained, was found highly useful; and under its influence, besides relief from pain, obtained in severe cases, protracted operations were successfully accomplished, including that already mentioned for the removal, in fragments, of a dead fœtus upon which the uterus had strongly contracted; a result that, considering the existing general irritability and local sensitiveness, would scarcely have been deemed possible without the aid of some anæsthetic. But, with these obvious advantages, ether was not always available, from the difficulty of regulating its action, and especially on account of the aversion many had to its use. Indeed, in some instances, where the lungs were very sensitive, its inhalation was more dreaded than the pains for which it was administered. Hence, chloroform was early substituted, and with the happiest effect; though, unfortunately, it had to encounter a strong prejudice in the public mind against its use—due no doubt to the injudicious influence of physicians, which the action of this society may do much to correct.

During the last ten years chloroform has been almost exclusively employed where an anæsthetic was desirable in midwifery. In no instance has any lasting injury resulted, and in but a single case has it been found to disagree, or failed to meet expectation. In that case its effect upon the patient was disturbing, and was not improved by continuing the inhalation to insensibility; on

the contrary, there ensued symptoms of exhaustion, with very nearly a suspension of uterine contractions, and its use was necessarily abandoned. In no other case has it been found to arrest or materially diminish the force of the contractions, but has almost uniformly rendered them more efficient, especially where, as with the very sensitive, the full aid of the voluntary muscles had been withheld.

As a rule, chloroform has not been advised in labors of ordinary duration and severity; but even in such cases it has not been denied when earnestly demanded by the patient. Among the eccentricities of midwifery is the fact, that women having before experienced its soothing effect have often been exceedingly importunate to know that the anæsthetic was at hand, and then, assured of relief when required, have passed cheerfully through the labor without a resort to its use.

Rarely has it been found desirable to continue the administration of chloroform to insensibility, and in ordinary cases, if used at all, it has generally been only to relieve suffering at or near the close of labor. But with uniform experience of its safety, uncontradicted by any known records of dangerous results in midwifery when properly administered, there would be no hesitation in continuing its exhibition as long as the condition of the patient might require. In one case of labor, severe and protracted, from the relatively large size of the child, which was dead and remarkably rigid, chloroform was continued twenty hours, with an occasional suspension, only for the purpose of ascertaining the condition of the system and the character of the contractions when its influence was not present. No unpleasant effect from the anæsthetic was experienced, either during or subsequent to the labor; and this, it is confidently believed, will be the result, whatever may be the length of time to which the use of chloroform is extended, if administered pure and in proper manner.

The mode of administration adopted after a variety of experiments is this: When the system has once been brought under its influence, the inhalations are repeated only at the approach of the successive pains—a point invariably indicated by the patient, after a brief experience. And in this way, without the full suspension of consciousness, physical pain may be overcome or greatly diminished, and the oppressive train of emotional sufferings abolished entirely.

Such are the conclusions fully sustained by the observations under consideration, and it appears unfortunate that disagreement of authors has kept the question of the utility of chloroform, or of any anæsthetic, in midwifery still undecided. The books, even of the latest date, are as diverse in the views they advance upon this subject as are the opinions of the profession around us. One about to commence the obstetric art, however diligently he may have pursued the investigation, must find it exceedingly difficult to deduce from their contradictory statements a definite mode of practice; and doubtless to these widely differing opinions of authors may be traced much of the want of harmony among ourselves.

The most reliable treatise upon the subject that has fallen under observation is a paper lately read by Professor Barker before the New-York Academy of Medicine, which, in several propositions affirming the principal positions sustained by the author, was elaborately discussed by the members, and almost unanimously approved by that distinguished association. The work was published in the American Medical Times, and has also been issued in pamphlet form.

F. P. FITCH, *Committee.*

Propositions appended by Dr. Barker to his paper upon Anæsthetics in Midwifery, read before the New-York Academy of Medicine.

"1. Anæsthetic aid is of the greatest value in the

obstetric art, and chloroform is generally the preferable agent for this purpose.

2. It exerts no injurious effect, when properly administered, either upon the health of the mother or child.

3. It is perfectly justifiable to use chloroform in natural labor, solely for the purpose of relieving pain.

4. It is especially useful in calming the extreme agitation and mental excitement which labor often produces in very nervous women.

5. It should be administered in those cases of natural labor where the progress is suspended or much retarded by the pain occasioned by previous disease, or such as may supervene during labor, and in those cases where the irregular and partial contractions occasion intense and almost constant pain, but have no effect to advance labor.

6. It is of great service in spasmodic contraction and rigidity of the cervex uteri, in tetanic rigidity of the perineum, in certain forms of puerperal convulsions, and in the various obstetrical operations."

PAPER BY NOAH MARTIN, M. D.

Mr. President and gentlemen of the Society: The topic to which I invite your attention for a very little space of time is

HYPERTROPHY OF THE NYMPHÆ.

The nymphæ are two membranous folds which arise from the lateral parts of the prepuce of the clitoris, and descend on the inner surface of the labia majora, terminating by becoming gradually thinner about the middle of the circumference of the orifice of the vagina.

They are each made up of two folds of the mucous membrane of the vulva, embracing in their substance a thin layer of spongy erectile tissue.

Their use seems to be, not as was once conjectured, to conduct the urine in its flow, which notion originated their name, but to promote the elongation and expansion of the vagina in pregnancy and labor.

Hypertrophied nymphæ is not a very common form of disease, yet presents itself occasionally, and is, perhaps, as well calculated to perplex the practitioner who meets with it for the first time, as any ailment incidental to the generative organs.

A case of a marked character having come under my observation and treatment recently, I thought it might not be uninteresting, in a practical point at least, to call the attention of the Society to it for a few moments.

An enlargement of the nymphæ may be a congenital

deformity, which, however, is uncommon. They may become enlarged by excessive excitement of the parts, and also from venereal contamination. In the latter case the structure of the organs are altered, and liable and indeed likely to degenerate into a scirrhous state.

When meeting with a case of enlargement of the nymphæ, in a married woman, the primary questions to be propounded are—Does the difficulty interfere with the marital rights? or does it hinder progression? or render the act of coition painful? These questions being answered in the affirmative, it becomes the duty of the practitioner, without delay, to relieve his patient, the effectual way being excision of the hypertrophied organs.

This operation may be well performed with the curved scissors or bistoury. I think the former the instrument preferable. The ligature by some has been preferred, without, in my judgment, any justifiable reason. Even when using the knife or scissors, it is suggested by some operators to pass several threads through the roots of the enlarged organs, so that, after the excision, the edges of the wounds may be the more completely placed in apposition, and healed more readily by the first intention. This certainly would facilitate the process of healing.

The nymphæ, though smaller than the labia majora, are much more vascular; but the vessels being smaller, though numerous, there need be no apprehension of severe hemorrhage incidental to their removal. Pressure, or the nitras argenti well applied, will, under ordinary circumstances, be sufficient to restrain fully the bleeding.

The case that came under my care some few months since, occurred in a Miss C., a young lady 23 years of age, of unusual intelligence, of sanguine temperament, more than ordinary in size, of symmetrically perfect development, and, apparently, of original robust health.

She said, "she had been afflicted with her difficulty

from one to two years, or more, and for the last six months it had increased much, accompanied with a degree of suffering past endurance; that from the delicacy of her ailment she had been induced to forego medical consultation and treatment; that she had conversed with a few elderly intelligent women of her acquaintance, who pronounced it a strange thing, produced most likely by a chafe and the neglect of it, but, probably, amenable to ablutions and topical applications, and had proposed and she had applied some astringent and emollient domestic remedies, but without affording even the least mitigation of her suffering. She had come to me willing to submit to any examination and treatment deemed expedient, providing there was a reliable prospect of permanent relief.

On examination, I found the nymphæ protruding beyond the labia majora two inches—irritated, thickened, hardened, and covered with a morbid viscid exudation; the pudenda, the anterior, inner and superior parts of the thighs chafed, reddened and even excoriated in many parts, in defiance of every effort at cleanliness. In fine, the view was an unpleasant one to behold, and seemed almost defiatory of curative treatment. But I did not hesitate to say to the patient that, in my judgment, she could have the relief sought, through the excision of the protruding organs; that the present was not the time for the operation; that preparatory measures must be adopted, namely, low diet, quietude, an alterative cathartic course, and detergent, antiphlogistic, topical applications resorted to.

The medical treatment suggested she thought she could comply with most cheerfully; but the removal impressed her as most horrible. "Would not the medical treatment suffice, if thoroughly and long persisted in? My instructions should be followed to the letter; no pains should be spared, and time enough allowed, without impatience." I said, we will try. I will institute the course, and watch the results.

I prescribed rest, by recumbency on a sofa or bed, most of the time. Diet—bread, roast apples, tea, dilute preparations of milk, chocolate, panada. Alterative cathartic course—pilulæ hydrargyri, gr. xii, every other night, followed the next morning with sulph. magnesiæ, six drachms. Local applications—a bath of an hour, night and morning, with a strong soap-suds, made with best soda soap. Intermediately—lint, saturated with diluted solution of sub-acetate of lead, and renewed when the moisture had evaporated.

In three weeks, under this treatment, the urgency of the symptoms had mainly subsided. The ardor urinæ had passed away; the phlogosed appearance of the parts and adjacent parts, had faded out; the viscid, irritating secretion had ceased; comfort had taken the place of discomfort; and all, in the procreative region, had assumed a normal aspect, except the protruding nymphæ, which had maintained their morbid, preponderating size over their associate genitals.

The question of removal now recurred. My patient "declared her confidence in the plan adopted as remedial; reiterated her horror of excision; and doubted not that due persistence would relieve her entirely, without the bloody resort." In fact, she conceived herself more than half cured. I renewed the prescription. In three weeks I saw my patient again. She had indulged a little at table, and more in exercise; intermitted, somewhat, in local applications; suffered her vigilance generally, more or less, to abate; and found, as a consequence, to her great regret, that the old train of annoyances were rapidly stealing back upon her. She entertained with more composure the idea of excision. She consented to, or rather desired the operation, the preparations for which were soon made.

The patient was placed on a sofa, convenient to a good light; the parts bared; the labia majora held moderately

asunder by an assistant; the nymphæ were seized with one hand, the curved scissors with the other; and, with two cuts of the blades, the excision was effected. The bleeding was free; but, by the application of the nitras argenti, was readily stanched. A pledget of lint, smeared with simple ointment, was insinuated between the cut surfaces, with directions to carefully renew, and adjust as often as displaced, together with soap-suds ablutions each day, until the wounds were fully healed. Internally—compound decoction of sarsaparilla, one pound and half; hydryodate of potassæ, one half ounce: mix. A wine-glassful to be taken three times a day. The directions were accurately followed, and, in less than two weeks, the cure was complete, much to the delight of my patient, and to my satisfaction, also.

REMARKS OF ENOS HOYT, M. D.,

OF FRAMINGHAM, MASS., DELEGATE FROM THE MASSACHUSETTS MEDICAL SOCIETY.

The Massachusetts Medical Society was formed in 1781. It was composed of twenty-five members; and up to the year 1800, a period of nineteen years, there were added forty-seven new Fellows. Among the early presidents, I find the name of John Warren, grandfather of the present John Mason Warren, and father of the eminent surgeon, John C. Warren. The next one to that of Warren's is the name of the venerated and venerable Dr. Holyoke, who lived to be more than one hundred years old. Cotten Tufts was also president, prior to 1800.

Among the early Fellows were Ammi Cutter and Hall Jackson of Portsmouth, N. H. Also Isaac Senter of Rhode-Island. In the list of honorary members are the names of Rush and Wistar of Philadelphia, Peter Green of Concord, N. H., James H. Pierpont of Portsmouth, N. H., Matthias Spalding of Amherst, the eminent Amos Twitchell of Keene, Thomas Chadbourne of Concord, Josiah Crosby of Manchester, and many other well known names.

During the last year thirty-seven Fellows were added, and thirty-three have died—an unusually large number of deaths. In eighty-one years from the formation of the society, there has been received into it two thousand two hundred and thirty-four members. There have been four hundred and ninety-four removals, and six hundred and

seventy-seven deaths, leaving our present membership one thousand and sixty-three. The average duration of life of the Fellows, to this time, has been fifty-eight and one quarter years.

In our annual meetings we alternate in places of attendance, and find that, on the whole, more avail themselves of its privileges by becoming members, which is very desirable. Next year we meet at Pittsfield; and it would be gratifying to us to have your society represented.

We have a large council of one to every eight or ten members. They are elected by the district societies. The council have three meetings a year, and transact the usual business, and choose the officers of the society. This enables us, at our annual meeting, to devote the time to addresses, and discussions on scientific subjects.

ORATION BY J. P. WHITTEMORE, M. D.

CONSIDERATIONS UPON SOME POINTS OF MEDICAL ETHICS, AND THE MANNER IN WHICH THEY ARE OFTEN OBSERVED.

The acknowledged purpose of the profession of medicine is the investigation of the truths of medical science, the discovery and development of its hidden treasures, by a careful pursuit and rigid observance of those intricate and visible phenomena which are being constantly presented to our senses, whereby we are enabled to appreciate and apply its benefits for the relief of the diseased economy.

And, if medical men were not urged by the uncompromising laws of necessity to be particularly diligent in observation, in order to obtain a correct knowledge of the healthy and diseased action of animal life, it is easy to suppose that individuals might be found, who, upon a cursory view of the subject, would decide for themselves, if no more, that there was very little moral sense in the human mind, and that the controlling principle of all human actions was purely selfish. Nor can it be denied with propriety by those who have carefully studied the elements of character, as met with in our professional intercourse with men, that man, ignorant of himself, uneducated and unenlightened in relation to the demands and purposes of life, is selfish.

But to entertain the idea that educated and intelligent men, and especially such as enjoy the additional advantages of the benefits derived from the liberal atmosphere of medical literature — the peculiar object and especial

purpose of which is the investigation and analysis of that complicated structure of mind and matter represented by man, with its varied functions, in health and disease, each urging us to a strict regard for nature's laws, and both warning us of the manifest evils of disobedience in each and every relation of life — is actuated by motives so unkind, so unworthy the self-sacrificing character which exemplifies the history of medical men, is wholly wrong, and should be treated as an absurdity; and no occasion for even the suspicion of such a charge ought to exist.

And yet so varied are the interests of men, and the motives by which they are actuated, that no one need to be regarded as guilty of treason or treasonable designs who should feel at liberty to think, or even hint the existence of such an error in our ranks. Perfection rarely obtains but feeble foothold, even in well-appointed society.

It is not my purpose at this time, however, to speak lightly of our profession, or undervalue its merits, collectively or individually; neither do I design to eulogize its virtues, or deny the existence of vices; both are manifestly visible; the one needs no confirmation, the other can not in truth be denied. Neither is it my design to attempt the promulgation of any new law or duty, but, if practicable, to invite the attention of the profession to a more constant regard for and observance of our established regulations; so that, by a proper watchfulness over all its interests, we may know whether the observance of its obligations in their integrity constitute the rule of our action, or only the exception.

Ethics are designed as rules of moral action for men of all conditions, and in all the relations of life their force applies not to corporate or collective bodies only, but to individuals as well. And wherever that decree, which prescribes to man his destiny, has fixed his abode, or whatever his circumstances or social relations may be,

this obligation is still in force, and its integrity can neither be extinguished, nor its importance diminished.

Medical ethics demand of the individual who takes upon himself the obligations its duties enjoin, additional responsibilities; and this is equally so, whether he wears the honors of a membership in some medical society, or only those of his "Alma Mater." For, in either case, this voluntary act causes him to become more of a public character; he assumes and accepts new responsibilities, and claims to treat and deal skillfully and expertly with the vital interests of men. Hence he enters more largely into the considerations of his fellow-citizens; and, if successful, enjoys their friendship, respect and esteem; but, if otherwise, feels as keenly their coldness, indifference and neglect. And if the former condition of things tends to intensify his moral obligations, the latter by no means lessens them; they still remain unchanged. Those claims upon him for integrity, implicit obedience and moral excellence can neither be destroyed or compromised; and though the cold hand of charity lay heavily upon him, and chill him like an iceberg, or blast him by ingratitude; nay, though he be left to wear threadbare garments, or eat the bread of poverty and disappointment, it were better to endure the humility, with becoming resignation, than to stoop to violate those duties enjoined upon each of our race, or the additional ones professionally assumed.

Comparatively, but few of our profession arrive at distinguished honors, except through routes beset with trials and discouragements; and professional eminence attained is secured only by the exercise of uncompromising diligence and energy in the mighty struggle to encounter the rugged and successive steeps of the ascent. Wealth and medical practitioners are not always available companions; and fortune and fame, when pursued by the country physician, through the deep valleys and over the mountain

fastnesses of our American Switzerland, are often game of capricious character.

And if in the pursuit of those objects which men desire and seek, we should for a time seem to fail in our efforts, as many will, we should still stand firm in our purpose — should not falter in effort or duty, nor shrink from our responsibility.

It is not to be expected that all will roll in wealth, or revel in luxury; neither can a majority attain the distinction, or enjoy the renown of Hippocrates, Hunter, or Cooper; yet all can be men, and men filling the measure of duty allotted to them; and, if true to their moral trust, will fill their space in the niche of time, as honorably as the most illustrious of their fellow-travelers.

Our duties as practitioners of medicine are often severe, and require services at our hands of the most trying character, which not unfrequently tax our energies and our integrity to the utmost of their capacity. And these trials are often the tests of both our moral and physical individuality; perhaps the only ordeal necessary or capable of developing the man, of unveiling his sterling qualities, and unfolding to his own senses and to public view those elements of moral and intellectual power which form the basis and superstructure of a future distinction and usefulness.

But we must not suppose that all are equal to the trials of these perilous struggles, and that it is a warfare in which all are victorious, and where none are victims to the opposing power; because experience teaches us that, upon this, as upon other great battle-fields of the profession, the weak, the timid, and others perhaps less worthy of our sympathy, often falter and fall from the healthy and correct standard of moral virtue. Hence, when thus seemingly overwhelmed with that which is often but a temporary, a transitory misfortune, they forget their vow of integrity, their manhood droops, and they grope ever

after irrecoverably in the dark, or revel in the idol worship of some false theory or visionary enterprise.

But if the invincible principles of true science are established, and character and genius enlisted, we might, nay, should with propriety anticipate an approach to a model profession, divested of exceptions of a common or special character, provided we cherished a strict regard for all its regulations. But the fondest hopes are often soonest blasted, and we may meet with disappointment in the house of our friends. We may witness disorder where perfect order should reign, and even disobedience and violations, or moral obliquity instead of moral virtue. And, in truth, are we not compelled by multiplied testimony to entertain as such no longer fancied innovations of adopted rules of government by members, but to regard them as existing truths, tangible facts?

Contemplating the benefits to be derived by the human race from a well-regulated and well-sustained medical organization, humane and public-spirited men, individually and collectively, in all well-ordered communities, looking through and beyond the cloudy atmosphere which obscures the vision of the narrow-minded and selfish to the future good of the species, have determined that such associations should be instituted, and such institutions should be sustained. Legislative bodies, too, have sometimes, though seldom, been found sufficiently interested in this department of science to lend their coöperation to encourage the labors of the profession.

And thus encouraged, the fathers of our profession in this State, in common with those of other States, availed themselves of the opportunity thus afforded, and, at an early date, became an organized body, which we, their successors, to-day represent.

To render the government easy and its discipline complete, they adopted a code of regulations by which its affairs should be conducted, and the intercourse of its

members with their patrons and the brotherhood shall or should be regulated.

And, cheered by these considerations, and with the exercise of liberal charity, there would seem to be but little wanting to brighten and encourage the hopes and labors of the practitioner in his duties, or to render the profession morally, what it never can be physically, an elysium.

In the by-laws and regulations of this society, published in 1841 (Article 2 of its police regulations), it declares that "Medicine is a liberal profession," and "that its members are expected to be men of education and refinement," and, before the section closes, it inculcates the doctrine, and virtually establishes as a fundamental law, that its members should obey its injunctions, should be true to the regulations thus adopted, true to the profession and to the vow virtually taken when they became members of it, and professed a determination to devote themselves, their talents and energies to such services as the world might demand at their hands; and, in short, not only to be true, but also loyal to their Fellows, collectively and individually, but to themselves also, by discharging, in the spirit and to the letter, every duty, public or private, which circumstance or condition might present.

In a later edition of the ethics of this society it is also again declared, that "Medicine is a liberal profession," "And that its members should found their expectations of practice upon the extent of their qualifications," not upon intrigue or artifice, not by sarcastic expressions or unkind insinuations, nor by professing more experience or skill than others, coupled with some peculiarity in the consideration of disease, claimed to be suggested by some intuitive gift not the boon of others; and, in short, we are here instructed to abandon every selfish or mercenary motive, and to adopt only that golden rule which deals in mercy, and rules with the utmost kindness and urbanity in all the intercourse of enlightened men.

But are our feelings never saddened by witnessing a departure from this standard guide? Rather, are we not often unwilling spectators of repeated violations of professional etiquette and common courtesy by the brethren, which tend largely to weaken the bonds of union, and to peril the existence, even, of our institution? And, if so, is it our duty to sit in silence and witness the gradual, yet constant destruction of this fabric of our fathers, or of the profession? or should we be active members—the faithful successors of a venerated ancestry of noble thoughts and worthy deeds—and preserve the comeliness and growth of their structure by careful training and proper pruning.

The complicated structure of the human frame, with its inexplicable laws of action in health, as well as its mysterious departures in disease, are unknown and unrecognized by the great mass of our patrons; and, in consequence, they comprehend but poorly the complex and often embarrassing difficulties which are to be overcome by the physician in his efforts to restore to healthy action the diseased economy; but the results they can and do appreciate, and upon these results they usually place the most intense value of merit or demerit. And the judgments thus formed are seldom mental reservations, but, rather, soon become items of public gossip—not consideration, for so worthy a term rarely mingles with the motives of many of the present actors. And from these imputations, base and groundless as they most frequently are, spring accusations and charges, unkind and unjust, against medical art and trusty and honest medical men.

Such a state of mind may, and often does, exist for a time in any community, and when it does it always affords opportunity for men of unprincipled character to prosecute their mischievous and selfish purposes; and, I need not add, that the occasion is rarely unimproved; nor is the statement sufficiently strange to challenge denial, that

men, upon whom the vow of professional sincerity is enstamped, are often among the first to shout alarm, and seize such occasion as a favorable moment to institute some favorite project, which combines the power of promoting their personal vanity or interest, and of embarrassing the progress of science and genuine merit. Thus the influence of truth may be periled, or at least injured, and its progress for a time delayed, while the partial or apparent establishment of error is confirmed; and that not by a just verdict of intelligent judges, but by the masses, unqualified to estimate the value of a learned profession, or its claims upon men for protection, and who, in the exercise of the more prevalent dogmas of the present day, might pronounce any institution, founded in truth, one of depreciated value and pregnant with many errors, rather than of real merit.

From among the many evils which might be enumerated as the result of this view of the subject, I shall first name the propensity, which prevails extensively, for crowding into our profession persons whose preliminary preparations are truly but superficial; yet they commence the pupil's course without having sufficiently considered the undertaking or estimated the probabilities.

Many of these persons—probably not all—have been flattered to believe that the doctor-making process was little more than formal; that, after all, it was only a brilliant trade, by which the golden dreams of man could be easily realized; that its task, for the student, was pleasant and easy, while the duties of the practitioner had more of the agreeable than of the irksome in them, while the emoluments were flattering. But, having become initiated, although badly equipped at the beginning, and often without sufficient diligence or application to make a proper improvement of the advantages they do enjoy, they pass the period of pupilage, and, if fortunate enough, as they regard it, to pass the final examination, are thrown upon

the community with commission to solicit public patronage. But here, as at a former stage, with tastes and habits poorly adapted to the duties they are seeking, and, not unfrequently, without sufficient education to meet successfully with educated men—the great struggle of professional life commences.

Early in their professional career, not a few, perhaps, of this class find themselves to have mistaken their calling, and the rugged and often perplexing labors of the profession, with the seemingly insurmountable barriers which obstruct the paths to wealth and fame, are now, for the first time discovered, or, if discovered previously, not until now appreciated. And no inconsiderable number of this class abandon the walks of scientific medicine, and embrace, with eager haste, the promises of reward offered by the serried hosts of empirics and charlatans which abound in our age. Others, disheartened, perhaps, by the prospect before them, retire to other callings, disgusted with a profession but half learned, and that so badly done as to be incapable of being unlearned; while a few struggle on, ever haunted with regrets that they had neglected a proper preparatory education.

Another evil, having its origin in the same cause, is jealousy; and professional jealousy, whether its cause be fancied or real, is a most humiliating passion; and if its possessor be a man of illiberal views, dogmatic, and associating with these properties those of venality and self-esteem, he will be extremely captious of other men's motives, while his own opinions and conduct will be limited only by his ruling passion.

The departments and sub-departments of medicine embrace so great a variety of subjects, that but few men have diligence or leisure sufficient to become masters of them all. It is, therefore, a fact of common occurrence to find members of the profession devoted more particularly to some specialty, while, at the same time, they are profes-

sionally acquainted with the whole. One may thus have a taste for surgery, another for obstetricy, and a third for general practice, in each of which departments they possess a superiority or may excel. Then, there are no two persons possessing the same natural abilities or acquired advantages, who pursue the same plan of treatment. They may diagnose alike, and treat the same symptoms and arrive at the same or similar results, yet by an entirely different therapeutia.

No man can master the whole subject. Hence, to accomplish the whole purpose of the profession, promote its progress, and sustain the institution of medicine, as well as the public and private interests of its laborers, medical men should be social, cordial, and often come in contact with each other, and seek interviews for professional purposes; nor should such interviews be regarded as in any way derogatory or detrimental to a man's professional character or standing, if his patient should desire a consultation, provided it be with a man of probity and honor, nor is it so regarded by intelligent members of the profession, or by the considerate, outside of the profession. And men of our calling, having liberal views and large understanding, cheerfully avail themselves of such interviews, on all proper occasions; and they usually become benefited by such comparison of ideas — such an exchange of thoughts. And often, too, some new idea, the germ of a new principle, is obtained, which, by the aid of subsequent light, becomes of the greatest value to the profession, and often adds luster to individual character and experience.

Progress is a law of nature; but it is not in accordance with that law that man can ever become perfect, or that he can complete all the purposes he was designed to accomplish, in haste. Therefore, one generation, and often many generations of men are permitted to advance, occupy, and retire from among the busy scenes of life, without

leaving any marked evidence of advancement in any given direction; while, after the lapse of a multiplied number of years, astounding developments are ushered into notice, which can then be recognized as the slow but persistent aggregation of receding ages.

The production of nature's most distinguished features are of slow growth; while the development of her grandest specimens are the results, often, of the most sudden and terrific convulsions, both in the material and moral world. The most famous deltas on the globe, though the products of the deposits of immense quantities of sand, have been the slow but constant work of centuries; while the accumulations during the life of a single individual are not appreciated, if to be perceived.

The secret and silent labors of nature, for ages, were required to pass ere events should be sufficiently matured to usher in the epoch pregnant with personages of such distinguished character, genius and patriotism as Washington and Napoleon; and it required more, even, than their lifetime to establish the value of their transcendant merits in the eyes of the world.

And, by observing carefully the instructions of nature, and striving to imitate her precepts, her general and special laws, and adopting the teachings of an enlightened understanding, medical men may and should strive, not only on general principles, to enlarge and improve the domain of medicine, but, by a careful observance and strict attention to the more minute details of our acknowledged duties, should endeavor to add to the culminating mass of the facts of science. Though that addition be composed of littles, yet, in the appointed time, it will bring to light some great principle, which will aid in the more perfect accomplishment of the mission.

Our position on the field of science leads the world to the expectation that we shall contribute largely to aid in unveiling the mind of man from the darkness which now

beclouds his vision and mystifies his senses, and in opening up to his view volume after volume of nature's great library. And this we may do and can do, though it be done only by turning a single leaf at a time.

New ideas are often with us the product of a comparison of views at the bedside of the sick. "Collision is said to sharpen intellect," and the keenly strained genius gives birth to the germs of a new principle, which, by association and combination, with occasional pruning, in due time unfold to view a new principle of untold value.

To promote more perfectly, then, the accomplishment of our mission, we should cultivate familiarity with our calling and our professional brethren; should allow its interests to control—nay, to monopolize—our action; and we should divest ourselves, not only of the appearance of selfishness, but of the principle itself. And the impress of honest sincerity should not only be emblazoned, but engraven upon every action.

And, if we would teach the world the sincerity of our professions, and that we desire to benefit the race, though assailed by the multiplied hosts of false pretenders, theories and theorists, and thus honor our noble profession and ourselves, while we impart to the diseased sufferer a cheerful willingness to contribute to his relief, we shall often associate with our Fellows in the sick room; converse freely with them upon medical points connected with the cases in hand; consult their opinions; avail ourselves of their skill; listen to suggestions—to the history of the case—its details and progress—in a frank and candid manner; and, if the counsel be of like type, the frankness is kindly returned, and sincerity, if nothing more, is dealt to the patient, and, in the eyes of all intelligent beings, both the interests of the profession and its claims upon the public are honored and exalted.

But, with the jealous man it is otherwise. He is not like the scrupulous man—nicely exact—who strives to estab-

lish a nice point of distinction between truth and error, while yet he entertains large views of science, and liberal opinions of men; but he regards any thing, looking like liberality, as a stumbling-block. Progress or improvement are words not found in his vocabulary, nor do they claim his consideration.

Such a man usually takes his position beside the early disciples of medicine, far back in the history of the race, when astrology, divination and medicine held the triumvirate over the mind. And, while he adopts the insignia of modern times for selfish purposes, he practically follows the absurdities of that dark age, and sacrifices the comfort of his fellow beings in distress, with the public good, upon the altar of vanity and self-interest, and prefers tradition for his guide, to the recorded and accumulating facts of scientific research.

He is extremely cautious of his rights, and his vanity and self-esteem have so wonderfully magnified him in his own estimation, that he falls little short of perfection, and he contemplates himself as having mastered the whole subject. Therefore, he needs to adopt no such course of social policy. He throws himself upon his "reserved rights," and keeps his own counsels; and, with a remarkable sagacity, his own peculiar quality, he scans the whole subject. And inconsiderate people are often persuaded by these exhibitions of wisdom, to place considerations of importance upon his pretensions; and if he is unrebuked, and they undeceived, are led to suppose him a prodigy, or a man of wonderfully surprising qualities.

And I doubt not that there is much increased and protracted suffering among those who seek the blessing to be expected from the science of medicine, because of the duplicity with which they are beguiled by these wily pretenders, and of the motives with which they are actuated; motives that will permit a man to protract the sufferings of a fellow being in distress, rather than to confess his

inability to meet the case successfully and call for assistance, lest his patient should be relieved and he be disgraced by his obstinacy and ignorance, or that truth should be vindicated and error confounded. The same motives might induce another to abuse a brother counsellor, after an harmonious interview, to which he had reluctantly consented, provided the suggestions of the counsel had been successful. In such a case the attendant's jealousy has been aroused, and he resorts to abuse and detraction as the only means of recompensing his friend and concealing his own mischievous purposes. I will illustrate:

I have been informed that a medical man, in one of the country towns of this State, was called, about one year since, to visit a patient sick of colic. After several days' attendance, the patient, though somewhat relieved, was not cured, and it was thought advisable, by the friends, to have another physician called; and, to suit the wishes of the attendant, a medical man, residing some eight miles distant, was summoned, and the hour of meeting was fixed at four o'clock P. M. At the appointed hour the doctors were on the ground. The case was duly examined, its history learned, and they retired for consultation. The disease, in all its symptoms and bearings, was fully and freely discussed. There was no objection to the course pursued, and none offered to the one suggested by the counsel for future adoption. All was harmonious, and the attendant, apparently, received and accepted the suggestions kindly and cheerfully. Harmony of views and cordiality are said to have prevailed. The medicine prescribed was administered in the presence of both, and, in four or five hours, the patient was permanently relieved. On the following morning the attending physician was informed that the patient was cured and needed no further medical attendance. At this the doctor took umbrage, and wrote the consulting physician a letter of severe reprimand, because he had, by his suggestions,

destroyed the confidence of the family in his professional ability.

Another error, of similar import, or springing from similar motives, is committed by certain professional men, who are extremely impressed with a sense of their value and importance as medical men. But, being exercised with jealousy lest their supposed merits may not be seasonably discovered and duly appreciated, avail themselves of any opportunity, openly or privately, to impress the minds of the public, or individuals, with a sense of their claims and abilities. I will relate a case to illustrate this: The case is said to have occurred in one of the southern towns of our State, a few years since.

A practitioner was called to attend a lady, sick of acute pneumonia. The case was somewhat severe, and he early desired counsel. A physician residing in a neighboring town was called, with a desire that he should name the hour of meeting, which he did, and returned the answer by the messenger. About one hour before the hour fixed by himself for the meeting, he arrived on the spot, desired and obtained admission, made a thorough and searching examination of the case, and, wishing to convince the patient and nurse of his professional acumen, suggested his suspicion that there existed some uterine difficulty, and solicited a digital examination. This was permitted and made; and after which, while he admitted that there was no lesion or evidence of such to be discovered, he very gravely suggested that, if the patient did not make a good recovery, she would do well to speedily consult some one who, like himself, had devoted more labor upon the investigations of diseases of that organ than the profession generally, lest there should be serious results.

At length, however, the hour of meeting arrived, and with it came the attending physician; and, as the counsellor had made a full examination of the case, they soon retired for consultation. After a full discussion of the

disease and treatment was had, and a perfect understanding between the parties was found to exist, they parted, without an allusion, on the part of the consulting doctor, to his untimely arrival, or to his having made a vaginal examination, or to there being any disease, or his suspicions of any symptoms of such, in that organ whatever.

Another violation, and the last I shall mention at this time, is practiced by medical men, not all of them members of this society, nor are all of them not members of this society, who seek to gain popularity in practice, by reducing the price of fees below the standard value of professional services; and there is no reason to doubt that this practice gains a large credence in some quarters. There is an old maxim, that no one knows the value of his services better than he who renders them; and that he, alone, should be allowed to fix his price. Admitting this to be true in the cases in question, it does not destroy the argument of the profession, but only proves that the men who unscrupulously practice such conduct, have got into company with men with whom they can not vie upon equal terms, and are endeavoring to make their record good in numbers by diminishing the price. And while it is proverbial that such men succeed only for a time, and ultimately effect their own ruin, it is evident that the interests of the profession would be better subserved if the subjects of this remark were expunged from the fellowship of honorable associations.

I have thus presented and examined some of the many obnoxious follies which silently and unobtrusively have, in part, taken possession of our profession, and which, by their entangling and intermingling properties, are threatening the prosperity, as well as the perpetuity of the science of medicine.

And, from these diversified points of observation, the busy eye of mankind obtain their view of our institution, judge its bearings—its purposes—and compare its results,

and from those results estimate its character and its claims upon man for consideration and support. But too often its errors and follies are found to outweigh its benefits. And need we be surprised at this, when we start with the admission that all men may be selfish, and especially those not educated like ourselves? And when it is an accepted maxim that "People judge others by themselves," can we wonder that we are sometimes, prematurely, regarded as selfish, too? But, setting aside this rule, need we be surprised? Ought we not, rather, to be affected by greater surprise, as we contemplate the protection and benefits of our association, and contrast the same with its embarrassments permitted, if not sanctioned? and when to it is admitted, by all intelligent beings, that there is no class of men in the universe among whom there should exist more harmony, or a greater respect for professional etiquette, and the observance of self-government, than among the members of our fraternity, or where there should be such unanimity of feeling in all well-directed efforts to promote the value and stability of the profession, and also of each of its members. And were all to cheerfully and honestly entertain and cultivate our accepted code of moral and professional integrity, we should unavoidably succeed in our purpose of establishing the object of our profession and the well being of mankind, and should afford less occasion for the censure and criticisms of skeptics, or opportunities for embarrassments by the charlatans.

Nature has wisely decreed, by an ordinance which is irrevocable, that the happiness of man shall be granted chiefly—nay, solely—by the measure which he contributes to that of those around him; and this maxim is a living principle, a vital force, in his economy. And yet man is not the sole recipient of this privilege. Other objects of nature's creation participate with him in this reciprocal endowment. And nothing but the most unpar-

donable lack of a knowledge of his own nature and purposes of life could have persuaded him to wander from the impulses of that nature to violate, advisedly, the laws of equity and the principles of justice to himself, and of kindness toward his race.

The gravest hindrance to the protection of medical science, and the universal diffusion of its blessings among men (not only of our day, but of all days and all times, since man was placed at the head of animated nature), is ignorance. And if mankind wisely understood this, and considerately estimated the true course of human conduct, all the desirable objects of the race would be more equally distributed and generally realized. And should the truth of this doctrine ever become a settled maxim, the rule of action, designated by nature, duly considered and regarded by all, the race would seek duty more constantly, and enjoy its rewards more extensively, while the incentives to the pursuit of wealth, vanity and self-esteem would be greatly diminished.

We often talk feelingly, and even warmly, of the cold indifference with which we are regarded by legislative bodies, and of the lack of confidence often exhibited toward our profession by intelligent people; and we complain of the injuries we sustain, and the encouragement thus afforded to quackery by this apathy and supineness. But, if we carefully observe facts, we can but learn, to our regret—perhaps alarm—that this coldness is to us a matter of small moment—of minor importance, even—compared with the injuries inflicted by its professed friends, who complicate its progress and utility by placing it in the light of a trade—a kind of commercial enterprise—whose importance is estimated by the numerical value of its coins, rather than as a liberal, scientific profession, created, preserved, and designed to be perpetuated, for the benefit and improvement of the race.

Our duties as medical men do not consist, as I un-

derstand them, in the administration of remedies exclusively or mainly important, as at times that duty may be; but they embrace a broader field, a larger sphere of action, a train of services actuated by kindness, sympathy, humanity and a love of truth, which encircles in its reach all that is truly great and ennobling in nature. And if mankind, and especially medical men, could be so universally impressed with the importance and magnitude of this subject as to regard it, not as a trade, but (as in truth it is) a great and sublime science, unfolding to his mind a complete and perfect view of himself and his race, and, beside, of all the objects of nature, whose elementary or proximate principles are constantly contributing to his formation, or ministering to his necessities, from the earliest moment of his conception to the latest period of his earthly career, his views of nature and of duty would be greatly magnified, and his acts of sympathy and kindness to mankind would cause his memory, as a benefactor of his race, to be transmitted to the latest ages of posterity.

ORATION BY THOMAS SANBORN, M. D.

SCIATICA.

The plexus ischiaticus (or sciatic plexus) is formed by the union of the last lumbar with the four upper sacral nerves. The last lumbar before it joins the plexus receives the branch of the fourth lumbar nerve, which is left after the lumbar plexus is formed. This plexus is situated at the side of the rectum, before the pyriformis muscle. The first four sacral nerves communicate with the sacral ganglia of the great sympathetic, beside forming the sciatic plexus. They assist the sympathetic to form the hypogastric plexus.

The sciatic plexus gives off the following small branches: The gluteal nerves, the internal pudic, the perineal and posterior femoral nerves. The great sciatic nerve (nervous ischiaticus) is the common trunk formed from the sciatic plexus. It is the largest nerve in the body, and passes from the pelvis, between the pyriformis and the geminus superior muscles. It is distributed to the posterior, inner and external parts of the limb. The anterior tibial accompanies the anterior tibial artery to the anterior part of the limb, from the knee joint to the ends of the first two toes. Consequently, all parts of the limb, to which this nerve is distributed, are liable to suffer from disease of this nerve, whether it be sympathetic or idiopathic.

"This nerve, like others," says Mr. Gross, "is liable to acute and chronic inflammation, suppuration, ulceration, gangrene, hypertrophy, atrophy, and different kinds of tumors. Also, to inflammation of the neurilemma and

cellular tissue, which connect the fibrilla of the nerve. Beclard thinks cellular infiltration or inflammation is frequently the cause of the pain."

Sympathetic pain in that part of the limb to which the sciatic nerve is distributed, may depend upon inflammation or irritation of any of the abdominal organs. The stomach, being oftener subject to irritation and inflammation from its common abuse, is the most prolific cause of sympathetic sciatica. "It is frequently induced by constipation, which may irritate the sciatic plexus." It is often caused by biliary and urinary calculi; reflex action, reaching the sciatic through the hypogastric plexus or medulla spinalis; excessive mental or physical labor, by producing functional derangement of the abdominal viscera or the medulla spinalis are often the cause of severe nervous pain.

By a careful examination of the patient, the physician will often be able to make out his diagnosis and determine the cause of this disease. But it is not unusual for those eminently qualified for this branch of medical science, to be baffled in the diagnosis of this disease, and acknowledge, like Dr. Watson, that the patient got at last what he should have had long before to effect a cure. In the investigation, the habits of the patient and hereditary predisposition might suggest the cause and treatment. If there was a loss of appetite, pain in the shoulders, and a torpid state of the bowels, the remedies would be indicated. If he had pain in the right side, dizziness of the head, and weakness of the spinal muscles, we should suspect strong coffee, tea and tobacco. The last is a more prolific cause of neuralgia than is acknowledged. If constipation was a very frequent cause of this disease, we should expect female patients more numerous than male; but this is not the case. Sciatica, in this section, is more common in males than females.

From the difficulty frequently experienced in compre-

hending the cause of sciatic pain, we should expect discrepancy in the treatment, which discrepancy is caused by the different conclusions about the cause, or in treating it as a disease indicated by the name. While one treats it with liniments and arnica, another with blisters, cupping and setons, the third will use emetics and cathartics; another treats it according to the rules of hydropathy and homeopathy; some have no faith in remedies, and direct their patients to be quiet a few months, when they will probably recover.

I will state the treatment of a few cases that have come under my observation, to show that this complaint may be cut short and much pain prevented, as well as strengthening the patient's confidence in the medical profession.

CASE 1. Mr. R., tall and muscular, with dark complexion, of temperate habits, aged about fifty years, had an attack of acute bronchitis (called by his family lung fever), five months previous. The cough continued through the summer, and was accompanied by sciatica. At the time the patient came under my treatment, the general health had considerably improved, without any improvement in the limb, which was emaciated. It would bear no weight, and was painful. The comp. rhubard pill tonics and counterirritants relieved the pain and improved the appetite. The health gradually gained for two months, when, by exposure, he had a relapse of the pain, which was quite as severe as at any time, confining him to his bed for a few days. Administered a cathartic, and introduced a seton about three inches below the trochanter, and prescribed tinct. sanguinariæ and vin. colchici, equal quantities: dose, twenty drops, three times a day. The patient rapidly recovered, and has enjoyed good health for the last sixteen years.

CASE 2. Mr. K., medium size, light complexion, with intemperate habits, aged about forty years, had, a few

years previously, been attacked with sciatica and fever, which confined him to the house for several weeks. He was suffering, at the time I was called, with excruciating pain in the left limb; tongue coated; pulse frequent; limb congested and purple. Treatment—cupping to hip and blistering over sciatic nerve with ignited chloroform. Gave pulv. jalapæ, cream tart. aa 1 drachm. Patient recovered in a few days.

Case 3. Mr. S. had been suffering from sciatica four months. Pulse feeble; appetite tolerably good; limb emaciated, but able to bear the weight of the body in walking, which caused pain. Treatment—syrup of iodid of iron, with a seton applied to the limb. Galvanism had been tried without removing the pain, but it had improved the capillary circulation of the limb. The seton soon relieved the pain; the patient rested well nights, and soon recovered.

Case 4. Mr. C., aged about sixty, temperate, with active business habits, sanguine, nervous temperament, capable of great endurance, was attacked with sciatica. Tongue coated and swollen; pulse full and frequent. Treatment—emetic of ipecac, followed with comp. cathartic pills; blister to hip; no other treatment. Patient relieved, and out attending to business in two days.

Case 5. Mrs. W., aged about forty, at death, light complexion, blue eyes, medium size, with more than a common share of vivacity of nervous temperament, had been subject to sudden attacks of severe pain in the right side, hip and limb for the last eight years, the pain in limb following the course of the sciatic nerve. The pain was soon relieved by external vesicants and opiates internally. It often terminated as suddenly as it commenced, leaving the system debilitated for a few days after. At the time the lady came under my observation, the only appearance

of disease was an eruption on the nose, papular in appearance, and mixed with acne simplex, which produced but little deformity. It frequently itched, and was quite annoying to the patient, giving her considerable alarm, she fearing it was cancerous. The painful attacks were less frequent during the last two or three years of her life than formerly. Mrs. W. died about three months after she gave birth to a child, which is living and healthy, so far as I have learned. About two weeks after her conconfinement, I found the skin hot, the pulse small and frequent, bowels constipated, pain and swelling in the right hypochondrium, tongue coated, canker spots over the mucus membrane of cheeks and fauces. Believing the tumor to be an inflamed liver, we treated the case as such. It was the opinion of counsel that the enlargement was occasioned by chronic inflammation of the peritoneal covering of the right colon; but, as that conclusion did not suggest much change of treatment at that stage of the disease, we agreed upon the course to pursue, and hoped for a favorable result. A *post mortem* examination revealed the cause of all the distress—the severe painful attacks of eight years past—and immediate cause of death. The bowels were quite natural in appearance. The urinary bladder contained about fifty small red calculi, about the size of a pin-head, and smaller. The gall bladder contained eight calculi, varying in size from a walnut to a pea. The liver was enlarged, of a light brown color, very brittle, and weighed six pounds. The kidneys appeared natural. The lungs and heart healthy. The biliary calculi were probably the cause of the previous neuralgia in the limb.

Case 6. Mr. H., aged about forty-five, dark complexion, bilious temperament, short, muscular, laboring man, of previous good health, complained of pain in the limb and hip, in the direction of the sciatic nerve, but continued out for two weeks, doing some light work. The applica-

ation of liniments relieved the pain; lameness continued. Much exercise caused sleepless nights and increased the pain, which finally caused his confinement to the house; when, being called, found the limb congested and purple, the pulse was slow, the skin cooler than natural, tongue coated and swollen, the teeth denting the sides, with but little appetite. The treatment was commenced with emetics, followed with cathartics. Liniments were applied to the limb and back, which gave relief for a short time, but he could not sleep without morphine. Blisters over the nerve, and the application of morphine to the surface gave relief for a short time only. About three weeks after I was first called, the patient was persuaded to have the seton introduced about three inches below the trochanter, when, with little attention to the digestive organs, his recovery was rapid. The only application ordered, after the seton, was red iodid of mercury ointment, to the back and limb. It was noticed in this case, as in others, that the tongue would become coated and swollen soon after the commencement of severe pain. I mention this to show how little reliance is to be placed in the tongue in treating this disease.

Mortification following Injury of the Sciatic Nerve. Mr. A. slipped from the haymow upon a broken fork handle, which rested against the mow. It penetrated his limb, about eight inches below the exit of the sciatic nerve from the pelvis. The nerve, at that place of exit from the pelvis, received the whole force of the body, and checked its further entrance. He did not suffer severely, but mortification followed, and he died about four days after receiving the wound. Decomposition had advanced so rapidly that it was difficult for assistants to remain in the room during the *post mortem* examination, which took place three or four hours after death.

REPORT

OF

DELEGATES TO DARTMOUTH MEDICAL COLLEGE.

THE undersigned, delegates appointed at the last annual meeting of the New-Hampshire Medical Society to attend the examination of the candidates for graduation at the Medical School of Dartmouth College, would make the following report:

Having been notified by the Faculty of the time, we repaired to Hanover on the fourth day of November, and the examination commenced immediately. Fifteen young gentlemen presented themselves for examination

The manner in which they acquitted themselves showed that they had received good instruction and had improved their time. They were examined separately by the professors, in the several departments of medical science, in which examination your delegates participated.

We were satisfied that the foundation of their medical knowledge was firmly laid, and, if they exercise ordinary industry, they will build a superstructure that will reflect honor upon their Alma Mater.

We are happy to reassure the Fellows of the New-Hampshire Medical Society that we found the appliances for imparting medical and surgical knowledge of the first order. The cabinet of Materia Medica and Medical Botany is perfect; and the Museum, which is largely increased from year to year, has a very extensive collection of dissections and pathological specimens.

We can but reiterate the oft expressed opinion, that our own Medical School is second to none in the country, in its facilities for imparting medical knowledge, and in the ability of its professors.

We can not refrain from expressing our appreciation of the kindness and courtesy with which your delegates were treated by the gentlemen of the Faculty.

S. W. ROBERTS,
L. W. PEABODY.

November 12, 1861.

REPORT OF COMMITTEE ON DEATHS.

RESOLVES commemorative of Luther V. Bell, M. D., late Brigade Surgeon in United States Army, and formerly Superintendent of the McLean Hospital, Somerville, Mass.:

Resolved, That the New-Hampshire Medical Society have heard of the death of Luther V. Bell, M. D., a native of our State, and educated with us for his eminent and useful life, and also a member of this society, with the deepest regret.

Resolved, That however much we must respect and reverence his character, for a life full of good deeds and useful acts to those who have suffered the greatest of human calamities, the loss of reason, yet we must, above all, admire the heroic spirit that led him to his last work for his country.

Resolved, That he exhibited the rarest patriotism, when, in feeble health and waning powers, he nevertheless devoted his last and best efforts in the cause of his country, and was found at his post when his last summons came.

Resolved, That his character for learning, patriotism, practical efficiency and stern integrity, deserves the highest commendation and lasting remembrance of the profession.

Resolved, That the New-Hampshire Medical Society would mingle their sympathies and sincere regrets with all those who lament the removal of so valued and accomplished a physician and so excellent a man.

RESOLVES COMMEMORATIVE OF ARTEMAS H. CARR.

Resolved, That the New-Hampshire Medical Society has learned, with deep regret, of the death of one of its Fellows, Artemas H. Carr, of New-Hampton.

Resolved, That in his death the society has lost a worthy and esteemed member, the community a valuable citizen and a faithful and intelligent medical adviser.

Resolved, That this society offers to the bereaved and afflicted widow, our heartfelt sympathy, and an earnest prayer that she and her little ones may ever enjoy the divine protection and guidance.

Resolved, That a copy of these resolutions be forwarded by the secretary to the widow of the deceased.

J. B. ABBOTT,
ALBERT SMITH,
E. CARTER,
} *Committee to prepare Resolutions.*

June 4, 1862.

ERRATA.

Page 21, 18th line, read *placenta prævia.*
" 21, 21st " " proportion for "portion."
" 22, 19th " " brim for "brain."
" 25, 23d " " convulsions for "convulsion."
" 26, 16th " " *primi para.*
" 26, 34th " " *primi para.*
" 28, 27th " " contractions for "convulsions."
" 29, 8th " " of your committee after the word "attempts."

THE

TRANSACTIONS

OF THE

New-Hampshire Medical Society,

(SEVENTY-THIRD ANNIVERSARY)

HELD AT DOVER, JUNE 23 AND 24, 1863.

CONCORD:
P. B. COGSWELL, PRINTER.
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PROCEEDINGS.

TUESDAY, June 23, 1863.

The seventy-third Annual Meeting of the New Hampshire Medical Society was held in the city of Dover, June 23d and 24th, 1863.

The meeting was called to order by the President, CHARLES P. GAGE, M. D.

The record of the last annual meeting was read by the Secretary.

The Council reported the following named gentlemen, who were elected Fellows of the Society:

George A. Crosby, M. D., Manchester.
Robert Thompson, M. D., Dover.
Alphonzo Bickford, M. D., Dover.
Nathaniel Low, M. D., Dover.
C. W. Hanson, M. D., East Northwood.
James M. Wheeler, M. D., Dover.

On motion, the following Committees were appointed by the chair:

Committee to introduce Delegates from other State Medical Societies—Drs. Albert Smith, Dixi Crosby, W. D. Buck.

Committee on Examination of Patients—Drs. Josiah Crosby, A. H. Robinson, Albert Smith, T. J. W. Pray, J. L. Sweet, Wm. Waterhouse.

Committee to audit Treasurer's Account—Drs. C. B. Willis, T. H. Currie, J. W. Lougee.

Committee on Nominations—Drs. W. D. Buck, A. H. Robinson, A. Smally, T. J. W. Pray, W. Leighton, S. M. Whipple, J. Danforth, J. W. Lougee.

Committee to draft resolutions in relation to the deaths of deceased members:

On the death of Noah Martin, M. D.,—Drs. T. J. W. Pray, J. H. Smith, R. Thompson.

On the death of J. S. Fernald, M. D.,—Drs. W. Waterhouse, J. Smith, C. H. Shackford.

On the death of Sylvester Campbell, M. D.,—Drs. J. B. Abbott, C. B. Willis, L. M. Knight.

On the death of Cyrus B. Hamilton, M. D.,—Drs. A. Smalley, D. Crosby, J. Clough.

Committee to take into consideration the appointment of Surgeons in the Army and present a memorial to the State Legislature—Drs. W. D. Buck, A. H. Robinson, E. K. Webster.

A communication was received from the New York State Medical Society, sending Alfred Wotkyns, M. D., of Troy, N. Y., as delegate to the N. H. Medical Society, who was introduced by the committee, and took a seat with the Society.

The committee on "Locality as a cause of Consumption" made their report. It was accepted and referred to Committee on Publication.

The same committee, Dr. E. K. Webster, was continued for the ensuing year.

The report of the delegates to Dartmouth College was read and referred to Committee on Publication.

Dissertation on Diphtheria was read by L. W. Peabody, M. D., and referred to the Committee on Publication.

At 12 o'clock, the President, Charles P. Gage, M. D., delivered the Annual Address.

On motion, it was referred to Committee on Publication.

The committee relative to the Bartlett Fund made their report, and it was accepted.

On motion of Dr. Smith,

Voted, That Drs. N. W. Oliver and W. Leighton of Portsmouth, be authorized as a committee to draw from the Portsmouth Savings Bank the legacy left to the New Hampshire Medical Society in the will of the late Dr. Josiah Bartlett, and to give bond in behalf of the Society to the said Bank to indem-

nify it in case the Bank book which is now recognizing the deposit should be found; and that the said Oliver and Leighton after receiving the money pay over the same to the Treasurer of the Society.

Voted, That the Treasurer be authorized to receive the money of the Bartlett Fund and deposit the same in some Savings Bank.

Committee to audit the Treasurer's account made their report, which was accepted.

The several committees to draft resolutions relating to deceased members made their reports, which were referred to Committee on Publication, and a copy to be furnished to the widows of the deceased.

At 2 o'clock the Society adjourned to meet again at 3½ o'clock.

AFTERNOON SESSION.

Met according to adjournment, the President in the chair.

The Committee on Nominations reported, and the following named gentlemen were elected officers of the Society for the ensuing year:

President—Paul A. Stackpole, M. D., Dover.

Vice President—John Clough, M. D., Lebanon.

Secretary—Nathan Call, M. D., Suncook.

Treasurer—Levi G. Hill, M. D., Dover.

Councillors—A. H. Robinson, S. M. Whipple, T. A. Wheat, H. Eaton, A. Bickford, N. W. Oliver, J. P. Whittemore, C. H. Kingsbury, V. Mannahan, A. M. Caverly, N. Wight, S. W. Roberts, M. R. Warren.

Censors—G. Montgomery, C. B. Willis, A. B. Crosby, W. Darling, R. Thompson, C. W. Hanson, G. A. Crosby.

Delegates to Dartmouth College—T. J. W. Pray, S. M. Whipple.

Orators for 1864—N. W. Oliver, S. W. Roberts.

Substitutes—J. Danforth, E. H. Davis.

Standing Committees—On Surgery—A. B. Crosby.

On Practical Medicine—Albert Smith.

On Epidemics—W. H. Thayer.

On Publication—N. Call, C. P. Gage.

On Arrangement—W. D. Buck, G. A. Crosby, E. H. Davis, T. Wheat.

Delegates to the several State Medical Societies—To Massachusetts State Medical Society—Josiah Crosby, C. P. Gage.

To Rhode Island State Medical Society—L. G. Hill, Wm. Leighton.

To Maine State Medical Society—J. Wheeler, J. C. Hanson.

To Vermont State Medical Society—A. Smally, Dixi Crosby.

To Connecticut State Medical Society—C. M. Caverly, J. W. Lougee.

To New York State Medical Society—W. D. Buck, R. J. P. Tenney.

Delegates to American Medical Association—E. K. Webster, H. B. Burnham, A. H. Robinson, A. B. Crosby, C. F. Kingsbury, C. H. Shackford, J. H. Crombie, T. H. Marshall, J. Danforth, J. Wheeler, G. A. Crosby, D. T. Frye, S. M. Whipple, J. L. Swett, C. T. Elliot.

The Committee on Practical Medicine made their report. It was accepted and referred to the Committee on Publication.

Dr. Currie presented an improved splint for the fractures of the leg.

Voted to adjourn, to meet again at 8 o'clock to-morrow morning.

June 24, 1863—Morning Session.

Met agreeably to adjournment, the President in the chair.

Voted, That Dr. Enos Hoyt, of Framingham, Dr. Chas. A. Savory, of Lowell, Mass., Dr. Batchelder, of Knightsville, R. I., and Dr. Alfred Wotkyns, of Troy, N. Y., be elected Honorary Members of this Society.

Voted, That the next annual meeting of the New Hampshire Medical Society be held in the city of Manchester on the fourth Tuesday of June, 1864.

After further deliberations, the Society adjourned.

PRESIDENT'S ADDRESS.

FELLOWS:

An ever kind Providence has permitted us to assemble here to-day to celebrate the seventy-second anniversary of the New Hampshire Medical Society. We come to greet one another, to exchange kindly salutations, to impart to each other whatever we may have found new or useful, to encourage each other in the faithful discharge of the duties of our profession, and to do honor to the memory of those illustrious men, who, when there was hardly an institution of the kind in the Western hemisphere, saw the necessity for the foundation of this Society. To you whose presence here to-day is evidence of devotion to the profession and your unabated ardor in the cultivation of the noblest study that can engage the human mind, and whose bronzed faces manifest your familiarity with the breezes that sweep the valleys, the sea shore and the mountain sides, I bid a hearty welcome. Although we meet under circumstances the most gloomy and depressing that ever weighed upon this loyal and patriotic people, although the dark cloud that rests over our beloved land seems at this moment more than ever before like shutting down upon us in utter darkness and endless night, let us not be disheartened. Let us renew our vows at the altar of science and redouble our efforts for the advancement of medical knowledge. Let us strive to prepare ourselves, and those who are to be called to the new field of labor opened by the unfortunate division in our beloved land, the better to discharge the duties of physicians and surgeons.

The rule of this Society, which demands of your presiding officer on this occasion an address on some subject connected

with the duties of the profession, may be so construed as to embrace all subjects that concern us as medical men. And it may be presumed that every one who has the honor of fellowship well understands all the immediate duties that devolve upon him in the successful practice of medicine and surgery. But as there are some duties which may seem too remote and unremunerative to command the attention of those who follow the profession as a trade merely, allow me to call to your minds some subjects which to me appear of great importance, in the hope of awakening through them a more zealous determination in you to give to the profession in this State the high position it is abundantly able to attain in all the great and philanthropic movements of this eminently progressive age.

Public Hygiene is a subject of the greatest importance to every individual of a civilized community. No wider or more interesting field lies open for the labors of the statesman or the philanthropist. The prosperity and happiness of a people greatly depend upon it. Few matters of public interest need a well digested code of laws so much as this for its successful prosecution, and none has had less aid at the hands of the lawmakers of this State. It is impossible for us either as individuals or in our corporate capacity to accomplish much without the aid of law. We must have good and efficient registration laws to secure the co-operation of the people and the officers appointed to collect, record and make returns of facts needed for useful and reliable sanitary reports.

Since the charter of this Society was granted in 1791, wherein it is declared that "as the benefit of Medical Institutions, founded on liberal principles, and encouraged by the patronage of the law is universally acknowledged," it is difficult to find on our Statute book a single efficient act for the encouragement of the cultivators of medical science. We have had legislation enough on wolves, foxes and crows, varying only a little from year to year, as to what should be considered the standard value of their heads; and we have laws for the protection of small birds and little fishes, but where is the law to ensure a perfect system of protection from small pox, by the cheap and simple

operation of vaccination, or to aid the medical student in the pursuit of the study of anatomy?

After being foiled by the Supreme Court of the United States in its attempt to violate the charter of Dartmouth College, the General Court chartered a Botanic Medical College at Pittsfield, all the graduates of which are now professionally engaged in the service of the country. And now we have those who would decoct a whole forest in the treatment of a simple fever, appointed to examine recruits for the army, invalid soldiers for pensions, and for brigade surgeons, while well educated, modest and deserving men are passed by in silence. The law has also provided a Board of Commissioners to examine candidates for army surgeons, but so little is the attention paid to its recommendations it is thought by some that in high places the board is viewed as nominal merely.

Now, gentlemen, is it right to remain quiet under the circumstances? Should we not look to it that those whom we send to legislate for us shall not only desist from casting reproach on the profession, but that they shall give us such laws as are necessary to enable us to institute and successfully carry out, all proper plans of hygienic and sanitary reforms? It has been abundantly proved in this and other countries, where sanitary regulations have been adopted, that a very large proportion of the sickness is unnecessary, and that no inconsiderable per cent. of the mortality is excessive, and all owing to the presence of removable causes.

Next to wise registration laws, we need power to enforce an efficient system of sewerage in our cities and large towns, and more thorough drainage in less thickly inhabited parts of the surrounding country. Our city functionaries are too apt to think that a cheap system of surface drainage of the principal thoroughfares is all that is necessary to ensure the highest degree of public health, while there may be in the immediate vicinity privies, cess-pools, stagnant water and every conceivable kind of filth, sweltering in the heat of an almost tropical sun, giving off in every passing breeze the seeds of disease and death to all who breathe the pestilential air. As a case in

point, let me mention that in the city of Concord a most fatal form of dysentery broke out at three different periods, in the same house, which was situated on the south side of the New Hampshire prison-yard. In the immediate vicinity of, if not directly under this house, is a drain leading from the prisoners' privy, and which empties itself into a small rivulet which is nearly or quite dry in the hot season. Again, to show the ill effects of poor drainage, it is a fact well known to the profession in Concord, that the most sickly locality in town, is a low tract of land south of Centre street, running parallel to Green street for nearly a mile with very little inclination. It was once an alder swamp, consisting of a deep deposit of humus reposing upon a substratum of hard pan, through which water constantly springs up, while the pan permits none to sink through it. The houses are so damp that in warm weather articles of clothing soon become mouldy in the closets and drawers.

In a certain locality on Green street, there once stood a house in which for years there was never a month perhaps when the inmates were all well. Three of the first family died there of consumption, or contracted the disease there. The next family that occupied the house were sick much of the time, and in the course of three years the man and two of the children died of pulmonary disease. The house was built on the mud and there was no drainage. The families were from the country with no hereditary taint, and were never sick until they occupied this house. Some time since the lot was filled up so that the bottom of the cellar is now perhaps one foot above the original surface of the ground. Of late years I think there has been much less sickness in that locality than formerly.

So far as my experience goes, damp undrained localities are twice as fruitful of rheumatism, scrofula, consumption, fevers and throat affections, as dry locations. It is my opinion that thorough drainage will make one locality as healthy as another, other things being equal; that with proper sanitary regulations we should have few if any serious epidemics. All the epidemics that have broken out in Concord in the last twenty-five years, so far as I know, appeared first in badly drained and

poorly ventilated places, and that they were more malignant than in dry and airy situations in the vicinity.

Ventilation is a matter too little understood by the people, and too much neglected by the physician in his daily practice. The power of resisting disease under all conditions of life, depends more upon the purity of the atmosphere we breathe than upon climate, food, drink or raiment. Zymotic disease may be said to be almost entirely attributable to impure air. The most malignant and deadly fevers often rage in localities where the air is rendered poisonous by the foul emanation arising from stagnant water and undrained grounds. The physician can hardly discharge his full duty without doing all he can to enlighten the people on this important subject, and to urge the necessity of living and sleeping in dry, well ventilated apartments. He should use every argument he can bring to bear upon those who are empowered to provide school rooms for our children, almshouses for our paupers, prisons for our criminals, and churches for the people, that they may construct suitable buildings, on the most approved plans, and not deprive either saint or sinner of an abundant supply, in its greatest purity, of that essential element of life, which has been impartially and abundantly provided for all by a kind Creator, and which, strange as it may seem, is not found on the list of taxable commodities.

The introduction of gymnastics into our schools is a matter which in my opinion calls for the careful and watchful attention of the physician. When it is proposed to devote nearly one half the school hours to gymnastics, recesses, and to singing, it is our duty to enquire if that course is likely to have a beneficial effect upon the health of the pupils, especially as it is urged upon the scholars to pursue their studies out of school hours by lamp light in badly ventilated rooms, heated by air tight and cooking stoves. If the great object is to make ballad singers and circus riders rather than scholars, then it may be well to attend more to the development of the muscles than to teaching the young idea how to shoot.

Like all other things, it is the abuse of it by over zealous

and uninformed persons, that is to be guarded against. That the introduction of such a feature into our schools to a certain extent, would be an improvement, especially in cities where commodious play grounds cannot be provided, there can be no doubt. An equally well cultivated mind and body is to be preferred to the excessive development of either. Monstrosities are not desirable. Therefore let us see that this system does not gain an undue share of attention in our schools.

The extent to which the adulteration of food and drink is practiced is enough to excite the horror and indignation of any one who has paid the least attention to the subject. There is scarcely anything that goes to appease the hunger or slake the thirst of man, that is not sophisticated in some way. And we have no protective law of the least value. It is not necessary for me to point out to you the injurious effects that must inevitably follow the use of such ingesta as are now sold in the market. It may be said, perhaps, that some adulterations are harmless. True, but does that divest the case of its fraudulent features? We want that which we purchase, and nothing else, even if the substance added is perfectly innocuous. There is nothing to justify such conduct in any case. The fact is the dealer is guided by no desire but to enhance his own profits; he cares nothing for the public. He knows of the adulteration, but the consumer does not.

Take the article of tea, which is used to a much greater extent in this than any other country, perhaps. It would be impossible, almost, to find a pure specimen for sale any where this side of the Atlantic. The Chinese themselves use some three or four kinds of foreign leaves to mix with the genuine tea leaf. The leaves of many of our forest trees may be detected in the teas which are sold, such as those of the beach, elm, horse chestnut, willow, poplar and thorn. But it is in the green tea that we find the most deleterious adulterations. Green teas are all artificially colored by causing to adhere to the leaves various coloring matters. There is no such thing as a natural green tea. For the purpose of coloring green tea the ferrocyanide of iron, tumeric, China clay, indigo, sulphate of lime

and arsenite of copper are used. This may be proved most conclusively by the aid of the microscope. There is another kind of tea in the market which is made out of the exhausted tea leaves, which are bought up and colored with rose pink, Dutch pink, chromate of lead, Venetian red, soap stone, carbonate of lime, carbonate of copper, arsenite of copper, Prussian blue and indigo, with catechu and sulphate of iron to restore their astringency.

Coffee is adulterated with chicory, roasted flour, peas, beans, corn, wheat, rye, barley, carrots, turnips, acorns, mahogany saw-dust, burnt sugar, dandelion root and the baked livers of cattle and horses. That prepared of the horse's liver sells for the highest price in the market. It is often difficult to make people believe that *livers* are used for this purpose. But it will not appear unreasonable when we reflect that the livers cost but a mere trifle, that the bile affords the bitter principle and that the coloring matter makes the imitation more nearly like the real article than any other substitute that has been found.

By means of the microscope we detect potatoe flour in arrow root, and red lead in cayenne ; clay, plaster of Paris, tumeric and cayenne in mustard, and red oxide of lead in snuff. Pickles are mostly colored by poisonous compounds of copper. The vinegar is often nothing but a colored water with from 1 to 2.5 parts in the 1000, of sulphuric acid. Much of the vinegar now sold contains so much sulphuric acid that a good dentist might find ample employment in repairing the damage done to the teeth by a single barrel of it.

But of all the methods yet devised to poison us, none can excel the manufacturing of sugar confectionery. The dangerous properties are in the coloring matter used to give the various tints. Children are the great sufferers from these preparations, the sugar pleases the taste, the shape is often tempting to the eye, while the beautiful tints give them great power over the minds and pockets of both darling children and doating parents. Some of the most deadly poisons are used by confectioners, some of them cumulative, such as chromate of lead, red oxide of lead, bi-sulphuret of mercury, Prussian blue, carbo-

nate of copper, arsenite of copper, and carbonate of lead. Gamboge, ferruginous earths, umber and indigo are among the least objectionable coloring substances used.

Now let a family of ten persons, old and young, in easy circumstances, feed from a table well supplied with all the variety the market affords, and let the little ones be well provided with fancy confectionery and how many members can reasonably be expected to survive one year? Can we in view of these facts wonder that many die, in spite of all we can do, when nothing in the nature of the disease can be discovered to prevent recovery? The truth is we are being poisoned in the most sly and insidious manner. We are daily taking into our systems in our food, drink, and the air we breathe, enough poison to produce fatal consequences, were it not for the power of the system to tolerate for a season the deleterious effects of such agents. And is there any way to diminish or put a stop to this wholesale process of poisoning the community, but by severe penal enactments? The crime of adulterating food and drink should be put on a level with counterfeiting, and the dealer in such article should be subject to the same penalty if he sells goods knowing them to be sophistocated. There is no other way for the consumer or the honest dealer to be protected.

Then let us individually and as a body use every means in our power to obtain the enactment of suitable protective laws on the various matters above mentioned. Their importance to the community can hardly be overrated. In comparison, many matters that engage the notice of our legislature from year to year, sink into insignificance. We should continue to agitate the people by means of pamphlets and newspaper articles. We should in our daily visits among our patients keep the subject before them, and when members of the legislature are elected, we should visit them personally, lay before them all the documents we can command for their perusal, and with all the eloquence we can command try to induce them to procure the passage of such laws as are needed.

The welfare of our soldiers in the army is a matter that should receive the attention of every patriot and philanthropist.

No people ever rushed to arms with more enthusiasm or made greater sacrifices in any good cause, than the citizen soldiers of this country. All that we can possibly do can never repay the soldier for his trials and sufferings, even if he escaps the bullet and the bayonet. In case of his being wounded he should have all the means it is possible for his comfort and safety. That our government have failed to supply the wants of our army in this respect is a notorious fact, substantiated by almost every army surgeon and by the sick and wounded volunteers who have returned. There is no government in Europe that has not a thoroughly organized and efficient ambulance corps. Not only the welfare of the soldier, but justice to the medical department of the army, demands such an organization. It matters not how able the surgeon if he is deprived of the means of bringing the wounded under his care. It is to be hoped that the profession throughout the country, aided by all humane people will make an effort to induce our government to organize a corps such as our army needs and humanity demands.

And now gentlemen, I cannot close without adverting to the great question of the day. Our country is under a cloud dark iand portentious. A great and powerful portion of this nation is in wicked rebellion against the flag raised by our fathers after years of suffering and the spending of millions of treasure. No hour so gloomy has it ever been the misfortune of this people to endure. Is the sun of our glory about to go down for ever and leave the worshippers of Liberty no gleam of light? Can it be that the future historian shall write our rise, progress, and downfall as not occupying the space of ninety years? And have we as medical men nothing to do in this great struggle for national existence, but to stand by in silence, or at most to look after the sick and wounded? Gentlemen, the founders of this Society were patriots as well as physicians. They helped achieve our independence. They witnessed the dreadful agonies of the colonies and welcomed the birth of a nation. The first President of our Society, who was also one of its founders, was the first person who voted for the Declaration of Independence and the second man who signed it.* The blood of the

* Josiah Bartlett.

heroes of the Revolution has never ceased to circulate in this organization. It is in this Society to-day. There has never been a more patriotic and loyal body of men in any State, nor one that has done more for the commonwealth. They have been the watchful guardians of the liberties of the people, the friends of true religion, zealous in the cause of education, and in all great movements for securing the happiness and prosperity of the State. That our profession has done its duty every battle field from Bunker Hill to Vicksburg attests. Let the thousands now ministering to the sick and wounded on the Potomac, in the Dismal Swamp, on the rice plantations of the Carolinas, in the everglades of Florida, and the stagnant bayous of the murky Mississippi, tell of the untiring devotion of our craft to their country and their calling. And then say if we who are left behind have not a high and holy duty to perform? What is our duty? It seems to me that as intelligent and educated men we should try to revive in the minds of the people the love of liberty, to remind them of the great doctrines laid down in the Constitution, to allay their passions, to stimulate their love of country, to implore them to reverence and abide by the law, caution them against the danger of deviating from the letter of that greatest of all human written instruments as expounded by the greatest and wisest of the sons of New Hampshire, the immortal Webster. The people of New Hampshire were among the foremost in asserting the rights of freemen, and defending them, and they have been to this day the staunch supporters of an united National Government. No where in this great country are the principles of equality and liberty cherished more sacredly. May they never forget that they are the source of all political power, that those who are chosen to office are merely the servants of the people and answerable to them only for the faithful discharge of their duty. The adoption of the Constitution was an act of the people. It was the passage of a great fundamental law by the people themselves, and now let all who love liberty unite in sustaining this great basis of all law. Let us not be cheated out of our liberties by a set of political thimbleriggers. In doing our duty as

good citizens, it is not for us to become political partizans. We should have but one aim, but one purpose — the safety of the Constitution and the Union. The liberty achieved by our fathers and guaranteed by the Constitution must never be given up under any circumstances. It is only by the strict observance of the written law of the land that we can hope to be preserved in this great national trial. Then let us resolve to stand firm by the Government, the Union and the Constitution of these United States. In view of the responsibilities of the hour let us not stop to discuss the causes of the war or party matters, but let us hasten to posts of duty and pledge our lives and fortunes to overthrow the enemies of free government and to restore the Union flag to every part of the country. Let us have faith in Almighty God, that he will in His own good time deliver his people from this great national peril, that He will confound and destroy all those who in any way strive to break up this Union, and that He will finally restore us to freedom, peace and prosperity.

REPORT ON PRACTICAL MEDICINE.

BY S. M. WHIPPLE, M. D.

Fellows of the New Hampshire Medical Society:

As the beauties of nature are set off in an almost endless variety, so it is in the Practice of Medicine. And as there are sublime truths that the most aspiring reason of man cannot overstep, on medical subjects, so, also, there are more plain and easy truths on which the weakest capacity may converse with delight and satisfaction. No man is offended with his garden for having a shady thicket in it—no more should we be offended with the practice of our profession, that among so many fair and open walks we here and there meet with a thicket that the eye of human reason cannot look through.

The truths which pertain to our profession are no less truths, because they in some, and even in many instances, puzzle the comprehension of its most gifted members. By the nature of things, many truths in relation to the other sciences as well as that of medicine must ever be wrapped in mystery, or else men would become angels, and angels, Gods. Relatively speaking, advancement in the science of medicine, as in all the various sciences and arts which have been studied and cultivated by man, is no progress towards a final result. Nations rise in intelligence, virtue and morality, but to recede into ignorance, vice and infatuation. Sculpture, medical and mathematical sciences, and true philosophy of the old world, serve but to puzzle the most profound intellects of to-day. And even the same cants and jugglery by word and gesture, practiced by medical men of the old world to supply the place of medicine and true medical knowledge, is to a similar degree cultivated and practiced at the present enlightened age by members of our own profession.

Men, with their different races, vacillate but do not, relatively, progress; and all with which they have to do are equally bound by the same fixed laws of destiny. Perfection in medicine, as in everything else in the physical world, like the universal solvent and philosopher's stone, is no nearer being found than at the primeval creation. And, like space and the immutable attributes of the Almighty, by which we are ever surrounded, it is never comprehended nor approached, either by the investigations of science or the crude imagination of the simple. Chemistry, with all its natural and forced products and combinations, in furnishing remedial agents, is as far from producing specifics as the sublime chemistry of olden time. The exhilerating and stupefying properties of the English Poppy are the same, whether in its natural or in a forced combination; and whether the natural or chemical preparation is the better remedy, is a problem not yet solved. And the mania of the present age for new combinations and new remedies, for the purpose of having greater control over disease, and reaching ultimately specifics, is as groundless as the imaginary art of producing the grand catholicon, or the transmutation of the base metals to pure gold. Like the trade in common school readers, the thousand and one remedies displayed in as many drug shops, is for a similar purpose; and new remedies are introduced more to be sold than for the success and profit of physicians and the welfare of their patients. If we would *cure* our patients with drugs we must keep them and the community as far as possible, ignorant of all dietetic and physiological subjects. Then medicine will have conceded power over morbid action, and the physician praise for his wise selections from his specific agents. If a drug cures it is a specific; and if medicines have this conceded power, the failing to cure is a fault of the physician in his lack of skill to select the proper remedy, and not of the drug itself.

But such practice is more in keeping with the arts and wiles of quackery than of the true physician; and the less the learned practitioner has to do with cures and specific drugs, the s patients will he consign to the ignorant pretender. If the rned physician does not want to put his learning and skill in

competition with the brag and bluster of quacks, he must keep himself away and above such unlearned pretentions; for, inasmuch as he does that, he is no more worthy nor better than they. Depend upon it, the miscellaneous throng of quacks in medicine live, and in many instances flourish as much upon the failings of regular physicians as upon the ignorance of community. If the regular physician spends his time and energies in manufacturing, and trying, and throwing away chemical combinations, for the purpose of some time arriving at specifics and cure-alls, he places himself in direct competition with the worst forms of quackery, and will succeed but little better in the application of his thus acquired skill than does his wiley antagonist. In this how much better are we than they? Only so far as to make our doses more palatable than theirs; which, in many instances, theirs greatly excel.

Community ought to understand better the causes of diseases, the nature and power of medicines, and the physician's true province and duties. And the scientific physician could have no nobler duties than to dispense, by his every day labors, this needed information. The popular idea now can see nothing in disease but a midnight assassin, who has entered his dwelling with the full intent to destroy; and nothing in medicine but a bludgeon in the hands of the doctor to lay out this fell destroyer. With this idea of medicine, and those who dispense it, the ignorant charlatan enters the room of disease and suffering, deals out his random blows, gives off his discordant orders, looks wild at the patient, rubs his hands and his head, while rolling up and sideways an awful look of the eye, finally succeeds in making all present believe that something awful is to pay, and something great and very remarkable is going to be done. And if the patient succeed to survive the altogether needless shock of this charlatan's performance, drugs are proved specifics, and ignorance and knavery are raised to wisdom and honor.

Not long since in conversation with a Reverend gentleman of rather more than ordinary natural ability, he said that there was one very important principle in homeopathy which he liked and thought was ahead of the old practice. On being asked what it

was, said he: "In cases where medicine is not particularly needed, they gratify all the nervousness, anxiety and imaginings of their patients by making them believe they are taking medicine when they are really taking nothing of the kind, and thus procure an effectual cure when all is accomplished that was desired."

Here the pious teacher would have us "continue in sin that grace might abound;" or, in other words, beguile and even deceive in order to accomplish our aims. Indeed, such a minister would make a very good quack doctor; or, at any rate, be ready to sign a certificate extolling their worthless nostrums and extraordinary cures. But the above theory is only the popular idea, and that is to be taking something in order to be well, and to get cured. Thus the true physician, as a *conservator* of health, renders, perhaps, more service to his race, and is also least appreciated than all others combined. And my honest convictions at present are that the practice of medicine will reach its highest perfection only when the physician's duties are confined most to the teaching of hygiene and physiology, and the least to the dispensing of drugs. Such a course by the learned profession of medicine would tend ultimately to the totally disarming of quackery and the thousand and one quack nostrums which is the bane of the present age, and establish the healing art upon the immutable principles of science. Common sense has no better application than to medical subjects. Is not the apoplectic when he is required and made to believe that abstinance from a hearty dinner will prevent a shock, better treated than when he is bled until he recovers his senses? Progress and reform are needed in this direction, and it is hoped that practical medicine is being better understood by the profession, and that some light is beginning to dawn upon the public mind— so much so that doctors may soon become able to deal honestly with their patients without being turned off to give place to some boastful empiric — when the temptation to mystery, deception and concealment shall be no longer supplied by misconceptions and prejudices of the popular mind.

In the light of the foregoing principles, and their application

to medicine, what is the rationale of practice to be drawn therefrom? In confirmation, allow me to relate somewhat in detail a few cases which have occurred in my own practice.

The first case was that of cholera infantum — the patient, a child about six months — the continuance of the disease about three months — the treatment exclusively the expectanta, and the result a complete reaction and perfect recovery.

The second was that of chronic diarrhœa, the patient a child of two years and a half — the continuance of the disease about two months — the treatment purely expectanta, and the result a perfect recovery.

The third was that of croup, the subject a little boy of about four years, under treatment eight days, resulted favorable. The medicines used in this case were Tart. Ant. et Pot. in emetic doses once a day for the first five days, the two following days an emetic of Ipecacuanha and Turpeth Mineral in combination, at the end of which time the false membrane was thrown off in long and irregular patches, and after a few weeks of loss of voice and hoarseness the recovery was complete.

In this disease, perhaps, the effect of medicine is more marked than in any other. It requires the prompt sedative effect of Antimony in the acute inflamatory stage, to be followed by the solvent properties of the Mercury to prevent permanent attachments of the false formation to the true mucous coat. In the other two cases, the withholding of remedies was perhaps as salutary in its beneficent results. The administering of stimulants, astringents and tonics in these cases, is perhaps more reprehensible than the withholding of remedies in croup or pneumonia. In the former instances we have to do with polished diamonds, requiring no artificial agents to make their structure more perfect; while in the latter we find abrasions which require the modifying influences of artificial agents.

These cases farther illustrate the foregoing principles by showing the necessity of being able to deal honestly with our patients and community. And just so long as we, as a society, permit ourselves to indulge in any arts of deception or buffoonery in order to gain confidence for the time, we shall not only

be suspected, and rightfully, too, but it will react with double fury upon not only those who really play the charlatan, but with equal effect upon the whole profession. And thus effectually by the few, comparatively, who, in their efforts to gain a little temporary gain or praise, indulge in such jugglary, true medical science is prostrated side by side with the most vile of empiricism.

Usually a physician is not able to treat a case three and even six months, and without administrating any medicines, simply giving directions as to diet and regimen, without being "turned off" because "he did not do anything." This dread of being thus summarily dealt with, has urged upon the doctor the use of drugs, at times and in cases where his honor and better judgment would have led him to withhold; and has, in consquence, produced complications of real disease "which no hellebore could cure." Of course a Miningitis and Hydrocephilus — the sequel of Cholera Infantum — produced by the administration of astringents and stimulants to *cure the Cholera*, is very easily made a God-send, not only to hide the poor sufferer from view, but to keep the unprincipled pretender within the confidence of those who are thus suddenly called to mourn.

But perhaps I have already carried this disquisition too far, and will conclude this part of the subject by simply saying that the profession of medicine can never become an independent profession until all its members shall be able to direct their practice upon the true principles of science and art, until each and all are not suspected of being guided by craft, policy and intrigue.

Thus far I have endeavored to elucidate by argument and illustration the province of the true physician, and in continuation of the discussion, I shall endeavor to illustrate the nature and power of the implements with which he has to do.

Drugs have had more credit attached to them as curatives, than any one is probably ready to admit, especially among the educated class of physicians. But in the primitive ages of medicine, a very superior excellence and power was attached to some medicinal drugs and preparations, by the then ex-

pounders and practitioners of the healing art, which to-day is too much the popular idea. What, therefore, has been taught which is error, must be untaught; and those who have led the way into this error of darkness must lead the way out to the light of truth; and also to bring with them all that is valuable to the relief of suffering man.

Like the beginning of every new theory or science, more was claimed for medicine at its earliest study and investigations, than what can really be sustained by experience. This does not prove, however, that medicines have no beneficial properties to modify or to restrain morbid action. Because medicines are not specifics, as they have been sometimes claimed to be, is no evidence that they are good for nothing. If the rudder is not the ship, or if the whip is not the team, it does not show but that both have a very important purpose to perform. The rudder may not be able to suppress the tempest and hurricane, but it may be able to so modify and direct the ship's course during the gale, as to bring it finally to anchor in safety; while if without the rudder and a skilful mariner the stately edifice would have become a total wreck. So likewise the team, which is floundering in the mire of despondency, stupidity and absolute coma, if made to rest until strength returns and the mire hardens by a natural process of ascending vapor, the team once more, without any application of the goad and whip, becomes healthful and competent for its accustomed duties.

The former of these examples illustrate a class of diseases where medicine, in some form, is absolutely demanded; while in the latter is exhibited a class of cases upon which the wily empirics perform all their wonders and do all their great cures. Medicine, it is true, is rather unsatisfactory in its results, and indefinite in its action, but it is none the less needed in its own peculiar sphere. And in this sphere, or in that class of diseases, or in that stage of complaint where medicines are required, is the physician's peculiar province to determine. And when this is really and honestly determined, and also the effect some drugs possess in controlling the disease which is known to ex-

ist, it becomes the physician's duty to administer the required remedies, as well as to withhold them when the end desired is accomplished. But a great error exists in practical medicine at the present day — and I believe it was never greater since the days of Esculapius — of administering drugs indiscrimately to all classes and stages of disease. The good teamster always carries a whip while driving his cattle or horses, but applies it only when it will rally or bring into action the most strength and vigor. So it is with the human system when weighed down with sickness, medicines should be used only when they will serve to rally dormant nature, and under every other circumstance or consideration should be strenuously withheld. When the true province of medicines is well understood and practiced by all its members — a reciprocal degree of courtesy will extend through the profession, which will disarm empricism and plant the healing art firmly upon the rock of science. Then there could be no experimenting with uncertainties, but every part of the science of medicine would become reduced to a mathematical certainty.

It was my intention to have embodied in this report an account of some important cases, not only in my own practice, but from the practice of others, and should have done so, had my communications been answered. But when I called you did not respond, (except in a single instance,) and I have now only to ask your favorable indulgence to what has been said, prepared as it has been under more than ordinary professional interruptions.

And finally, let us all be worthy the exalted name and position ascribed to us by the ancient historian and poet, Horace: *Quod medicorum sunto, Promittunt medici.*

DIPHTHERIA.

BY L. W. PEABODY, M. D.

To mitigate the ills of life in our brief sojourn from the cradle to the obscurity of the tomb; to arrest those causes which tend to abbreviate our transient existence, and to improve the constitution of our race, by an acquaintance with and obedience to, the laws of our nature, are the primary objects of the profession which we have chosen. In no profession or occupation in life is the precept, "Know thyself," more imperative. This necessarily implies a knowledge of the laws which govern the mind and matter in all of their varied states of combination and relationship which is necessary to our acquaintance with that structure "fearfully and wonderfully made,"—

> "Its frame, its bearings and its ties,
> Its strong connections, nice dependencies."

Knowledge and wisdom are the essential characteristics of the physician. In the words of the enthusiastic Hippocrates, the father of our Science, "Whatever really constitutes wisdom, is to be found in medicine."

If then all wisdom is to be made subservient to our will in the accomplishment of our object, how wide and unbounded is the field before us! Says the immortal Cicero, "*Men* never resemble the gods so much as when giving health to men." "Knowledge, the legitimate child of industry and perseverance, when joined with goodness of heart, enables the venerable divine, by his doctrines and examples, to point out and lead the way to Heaven. It inspires the lawyer with eloquence to snatch the widow and the orphan, the poor and the destitute, from the iron grasp of the oppressor. And it no less indues the physician with skill to turn aside the shaft of death,

quench the burning fever, and re-plant the roses on the faded cheek. It gives dexterity to the surgeon's hand to staunch the bleeding wound, restore the broken and emaciated limb, and let in the light of Heaven upon the darkened eye."

It becomes us then as physicians to avail ourselves of

> "All knowledge, human and divine,
> Which thought can reach, or science can define."

In looking around upon the vast field of knowledge for a subject upon which to arrange a few thoughts, I can find none which seems to have greater claims upon our attention at the present time than

DIPHTHERIA—a disease which is even now stalking through our land, laying its icy grasp upon the fair forms of thousands of children, which our country will soon need upon the stage of action to take the places of those tens of thousands who are falling in her defence.

In making a few remarks upon this disease, which is alike the dread of the fond parent and the kind-hearted physician, you will excuse me if I make pretty large quotations from others, for a treatise upon this subject in the present state of our knowledge can be but little more than a compilation. Indeed, I would not have the vanity to introduce my own experience and opinions to the exclusion of those who have seen more of the disease. I shall not go into a general history of the disease, any farther than I can trace it from my own observation. It is considered by some to be a new disease, but I have no doubt it has existed from time immemorial. The first cases that came under my observation occurred in June, 1846, soon after I commenced the practice of medicine, of which I may have occasion to speak before I close. I have seen cases of it occasionally from that time till the present, but not as an epidemic till October, 1860.

It is a disease of childhood, though adults are by no means exempt. As a general rule, the severity of the disease is in inverse ratio to the age of the child, though according to my experience, nursing infants are not so liable to contract the disease, and if they have it, it is more mild, owing probably, to

the greater facility for introducing nourishment into the system.

The early symptoms of diptheria are ushered in by the ordinary precursors of other febrile diseases, such as vomiting, chills, sore throat, lassitude, &c. Ordinarily the physician will not see the patient until the early symptoms have passed away, and the characteristic symptoms of the disease have manifested themselves; such as enlargement of the subanaxillary and cervical glands, and the appearance of the false membrane upon the tonsils. These are the pathognomonic signs of diphtheria. The swelling of the neck is just back of the angle of the jaw, or under the ear, on one or both sides. If both sides are affected, one is worse than the other.

The exudation upon the tonsils is of a dirty white complexion, and in bad cases, of dark, almost ash color, and accompanied by the most intolerable fetor of the breath, owing to the decomposition of the false membrane. The febrile symptoms usually pass off in the course of forty-eight hours, and leave the patient languid and feeble, and we usually find him up and dressed at this time. Sometimes the false membrane extends into the nasal passage, and then we have yellowish watery discharges from one or both nostrils, which, owing to their acrid condition, produce a redness, and sometimes excoriation of the upper lip. The nasal passage is soon completely closed, and the dry crusts that collect, fill up the external passage. But the more dangerous course which the false membrane is liable to take is the larynx and trachea producing membranous croup. It is when the practiced ear of the physician detects the croupy cough and he witnesses the labored breathing, that his heart sinks within him. It is then that all remedial agents alike prove futile. When the case takes a more favorable course, we find, after four or five days, that the false membrane begins to cleave from the tonsils, and the mucous membrane remains red; but it is extremely liable to re-form the second or third time. Even after the membrane has finally disappeared, our patient is by no means out of danger. A poison is introduced into the system by some means, which produces effects not unlike those produced by the absorption of the virus in malignant pustule.

It may be introduced in three ways,— first, by direct absorption; second, by inhalation of noxious gasses with the air into the lungs; and thirdly, by swallowing the secretions which accumulate in the throat. This poison produces such an overwhelming effect upon the nervous system, the child sinks under a most depressing typhoid state. Prof. Alonzo Clark, in his lectures upon Diphtheria, published in the American Medical Times, says — "Well now, what is it that produces death under these circumstances? The obvious answer is — a certain poison, the nature of which we do not understand, which, though it has spent its force to produce local manifestations, has not yet exhausted its fatal control over the nervous system. It seems to destroy, making allowance for the difference in time, as prussic acid does, by overwhelming the nervous forces. I know nothing else to say about it."

This poison manifests itself in the blood sometimes, by producing a Purpura Hemorrhagica. About the fifth or sixth day we perceive bright red spots varying in size from a pin's head, to a small pea; they soon spread somewhat and turn darker, until they are nearly black. We soon have a Hemorrhagic tendency set up — blood will ooze from the gums, throat and nose, indeed we may have uncontrollable epistaxis. This is a very unfavorable symptom; in fact I have never seen a recovery where this state of things existed. Prof. Clark quotes from a Spanish author who wrote of an epidemic which prevailed in Spain in 1600. He says — "I have often observed that hemorrhage from the nose and mouth in this disease is fatal; indeed, I have seen no one survive in whom this hemorrhage from the nose or mouth has occurred." Dr. Clark adds, "I do not know that we are compelled to take quite so gloomy a view of this feature of the disease, but certainly it is one of the gravest of symptoms."

Vomiting in the advanced stage of the disease is another very unpleasant symptom, for it not only interferes with the administration of our remedial agents, but, what is of as much or more importance, it prevents the little sufferer from retaining nourishment upon the stomach, and thereby deprives us of

one of our most important appliances in combating with the disease.

As the disease progresses we sometimes have an irregular pulse. At first it may have been rapid, and from then on we may find it slower than natural; but it is the fluttering or irregularity of the pulse in its rythm, of which I would speak. This is an unfavorable symptom. Dr. Clark in speaking upon this point says: "As the disease advances there are three things specially noticeable in the pulse. In some it continues at a prctty rapid rate during the whole of the disease; in others it is rapid for a certain time, and then almost suddenly falls off to some small number — 56, 50, 40 even, and remains there, without any cause that we can distinctly ascertain, for three or four days; and in others still, its striking feature is extraordinary irregularity, rapid, interrupted and irregular in all respects. Among these peculiarities I think I have learned to regard the irregular pulse in the advanced stages of the gravest importance. A rapid pulse can be borne for a considerable time, and still a child may recover; and the infrequent pulse as I have met it, is not only among the most alarming of the prognostics, but a marked irregular one is that which gives me the gravest anxiety. I know of no one symptom, the difficult breathing alone excepted, that is more indicative of an unfavorable issue." Connected with this irregular pulse we usually have a general dropsy. In October, 1860, I attended a child eight years old, who had the disease. There was a good deal of swelling of the neck and suppuration on both sides. This irregularity of the heart's action manifested itself early in the disease, and was attended by general auasurca. At one time she was nearly pulseless for twelve hours, notwithstanding the tumultous action of the heart, and a medical friend whom I invited to see the case, pronounced it hopeless. Under the use of brandy and quinine she gradually recovered, and in June, 1862, had scarletina simplex, which was followed by se vere dropsy.

Another case occurred in November, 1860, where a boy, six years old, went through the different stages of diphtheria, and

became convalescent to all appearance. The false membrane disappeared from the tonsils, and his appetite returned and he was out of doors. But shortness of breath manifested itself on taking exercise, and on examination I found this irregular pulse and fluttering of the heart. He soon became dropsical and died.

But my time will not allow me to speak of all the symptoms. I have mentioned only some of the more prominent. There is a greater variety of symptoms, in different cases, than in almost any other disease I ever was called upon to treat. Indeed we scacrely find two cases alike. I will say a word upon the sequalæ of the disease.

Diptheria is a disease from which recovery is slow and tedious, and the patient is extremely liable to relapse. Great prostration of strength and long continued general debility are the common results. One of the most frequent difficulties is local or general paralysis. It sometimes manifests itself in the muscles of deglutition. I have seen persons recovering from the disease to be troubled for months with a difficulty of swallowing. The arms and lower extremities are sometimes partially or completely palsied. Another sequalæ of the disease is impaired vision. The eyes become presbyoptic. In 1855 a case occurred under my observation where the disease was well marked, in a boy above seven years old. After convalescence was well established, his mother became much alarmed because he could not see to read. She finally discovered that by using convex glasses, he could read as well as ever. I have seen many such cases since then. Dr. Clark thinks it is caused by a paralysis of the muscles of the eyes, which adjust the crystalline lens to the object so as to fetch the image upon the retina. This is a temporary inconvenience — the patient usually recovering from it in a few weeks, under a tonic course. Absesses about the neck are not infrequent in children recovering from the disease. Dropsy, as I have before hinted, is another quite common sequalæ of diphtheria, but that is usually the sequence of functional or organic disease of the heart.

The causes of diphtheria are predisposing and exciting.

Among the former I would mention a scrofulous diathesis, or those children and families, who have enlarged tonsils, and are liable to throat troubles on exposure to cold. Another predisposing cause is close, badly ventilated dormitories. When we find some five or six children sleeping in a small close bedroom with but one window — three in the high bed and as many more in the trundle-bed, we may be pretty sure these children will be victims of diphtheria, should it become epidemic. Epidemic influences predispose children to the disease.

Among the exciting causes, we reckon contagion, though many good practitioners have doubts of the contagious nature of the disease. I have but little doubt that it is contagious, and I base my opinion upon my own observation more than upon the opinions of others. But I do not consider it contagious to the same extent of small pox, but when it is epidemic and one child in a family contracts the disease, others are extremely liable to have it unless the sick one is isolated. I could enumerate many cases, if time would permit, where contagious influences could scarcely be denied. It is a well established fact, that the disease can be propagated by inoculation. A sudden cold will excite the disease where epidemic and other predisposing causes exist.

In the treatment of this disease, there has been great difference of opinion, and opposite courses have been recommended by different writers. But since its asthenic character has been established, almost all good practitioners agree upon the general plan of treatment, to wit — tonics, stimulants and antiseptics.

Three cases occurred in my practice in 1846, in one family, two of which proved fatal, and one recovered. In consultation with an aged physician, now deceased, he told me if I had any more such cases to give quinine and use stimulating gargles. I have followed that precept from that time to this, but not, I am sorry to say, with uniform success. If the physician is called early, it is a good practice to give an emetic of ipecacuhana, and perhaps a gentle laxative, unless the bowels have been already moved. I have no faith in the local application of nitrate of silver, indeed I am not sure but it does more hurt than good

by abrading the mucous membrane and thereby forming a nidus for the effusion of false membrane.

Counter irritation externally applied is thought beneficial by some, and I usually order a slice of salt pork, covered with capsicum, to be applied under each ear. I think I have found benefit from blistering on the back of the neck, or between the shoulders. It is important to use some caution in blistering, for we often get an exudation of false membrane upon the blistered surface, and sometimes it takes on a sloughy or gangrenous appearance. The blister should not be allowed to remain more than an hour or two. I got this idea from our much respected fellow, the late Dr. Fernald, who has gone to his rest since our last annual meeting.

Stimulating gargles, such as capsicum, vinegar and salt, in children old enough to use it, will have a beneficial effect. Chlorate of potash is highly recommended, and I ordinarily make use of it, acidulated with hidrochloric acid, which constitutes the chlorine mixture as brought to our notice in Watson's Practice, p. 885. Indeed I think all the benefit we get from chlorate of potash is derived from its disinfecting properties. Chlorine neutralizes the feted secretions that are swallowed, and I am not sure but it may have the same effect upon the poison after it enters the circulation. But my main dependence in the treatment of diphtheria is derived from *tonics* and *stimulants*,—*quinine* and *brandy*, and they should be resorted to early in the disease, notwithstanding the febrile condition, and continued in increased doses to the end. Tincture of chloride of iron is another good thing to be given during the progress of the disease, and while the patient is convalescing.

The nourishment should be of the most generous character, such as beef tea, milk, beef steak, toast &c. When nourishment and medicine cannot be tolerated upon the stomach on account of the vomiting, I would use injections of beef tea, quinine and brandy. Even temperature in a well ventilated apartment during the disease is of great importance, and the patient should take gentle exercise in the open air during convalescence.

REPORT OF DELEGATES TO DARTMOUTH COLLEGE.

To the N. H. Medical Society:

From the earliest days of medical science down to present time, medical men have occupied a more or less exalted and responsible position in the physical, moral and scientific world, and it has been the purpose and practice of the best and ablest minds in the profession to advance and enlarge the attainments of the student of our art and science, extend the great truths connected therewith, and make them available and practically useful to the communities in which members of our fraternity may reside.

No class of men ever lived who were more devoted and self-sacrificing than physicians, or who were greater benefactors of their race.

More than seventy years ago the medical men of New Hampshire, believing that greater efficiency and usefulness might be attained by association, conceived and brought forth this Society, whose course has been onward and upward, and now numbers among its members a large proportion of the regular physicians, and, as we believe, the ablest men of the profession in this State, and many highly valued members in other States.

More than forty years since, the New Hampshire Medical Society, with a view to aid still further in elevating the standard of medical education in this State, appointed delegates from among its Fellows, whose duty it should be to attend the examination of candidates for graduation in the Medical Department of Dartmouth College, and by mutual consent take part in those examinations. This course has been pursued, delegates being elected annually, to this date, as is believed with pleasure and profit to all concerned.

Your delegates for 1862 were duly notified of the time when

the examinations would commence, and repairing to the ancient seat of learning, were cordially received and kindly entertained by the Medical Faculty.

The number of students in attendance upon the Lectures was larger than in former years, being seventy-one; which, considering the condition of the country, and the great number gone to the war, is very encouraging to the friends of the Medical College.

The graduating class of sixteen young gentlemen, of apparently sound health and good intellects, presented certificates of good character and lawful pursuit of preparatory and professional studies, and, what was more satisfactory to your delegates, they generally evinced a thoroughness of instruction and good understanding of the various subjects upon which they were examined. Each candidate was examined by the Faculty and Delegates, and it is but just to say that they generally acquitted themselves in a manner highly creditable to the students and Faculty, and your Delegates very cheerfully approved their graduation, feeling that that class will go out into the world to do well for themselves and any community in which they may practice our profession.

We were kindly shown through the various departments, and highly gratified to find many improvements and much advancement from olden times.

The Lecture Rooms are newly furnished and chairs substituted for the long benches usually found, and these rooms are now neat, well lighted and ventilated, and in all respects convenient and comfortable.

The Chemical Laboratory is a model of neatness and order, well furnished and liberally supplied with all the means necessary to the study of the important branch of our profession.

The Museum of Materia Medica and Medical Botany is very ample, classified and arranged so as to be studied under the most favorable circumstances. This Cabinet occupies a large hall and contains specimens of all the substances with which we have to do, spread out so as to be seen and studied by every student, and shows an outlay of money, labor and skill highly commendable to the Department and the College.

The Pathological Museum contains specimens in model, cast and wet preparations, rare and beautiful; thus enabling the Professor in this Department to elucidate, and the student to more fully comprehend and understand the subject presented or discussed.

The Anatomical Cabinet is large and contains not only the usual specimens of Human and Comparative Anatomy, but many and rare specimens of disease.

In fact, every department is well provided and arranged, the location of the College healthy and pleasant, and the advantages to students from their connection with the Scientific Deartment of Dartmouth College, all combine to assure the student that he may here find facilities for pursuing the study of medicine rarely enjoyed.

We would also state that in addition to the usual and prescribed course of Lectures, Dr. A. B. Crosby, who has occupied the position of Brigade Surgeon in the army and seen much of military surgery, delivered a very interesting and instructive course upon that subject, and we understand Dr. C. is to be Assistant Professor of Surgery, and will deliver a similar course next Autumn.

We may add that we believe the Professors of this Medical College are to be ranked among the devoted men of our profession, and looking upon them as competent and devoted teachers and gentlemen, we cheerfully commend this school to the confidence and patronage of the profession generally.

LEVI G. HILL, } *Delegates.*
W. D. BUCK, }

REPORT ON DEATH OF MEMBERS.

BIOGRAPHICAL MEMOIR OF NOAH MARTIN, M. D., OF DOVER, N. H.

This occasion, as well as the reputation of the subject of this notice, demands that something more than the customary resolves usually passed at our annual gatherings in the event of the demise of one of our own members, should be presented for our consideration. Since the last annual meeting, two of the Ex-Presidents of this Society have passed from earth to "that bourne whence no traveller returns." We refer to Drs. Fernald and Martin. Both were nearly of the same age, and both intimate friends. Dr. Martin held important trusts in our State, as well as in this Society. He always wished well its interests, and in no small degree was a promoter of its prosperity. There is then no need of an apology or a formal vote to carry out our wishes on the present occasion, for no one will question the propriety of the act, though they may doubt the ability of the humble means to express in fitting terms, our sorrow and give in well selected language a suitable memoir of our departed friend.

Dr. Noah Martin was born in Epsom, N. H., July 26, 1801. His parents belonged to that industrial class of the community who pursue the business of agriculture. They were in moderate circumstances, and, like many of this class felt early the importance of giving some other occupation to one of their sons than that of farming. Accordingly the subject of this notice was the selected one who was to leave home and its enjoyments to try the fortunes of professional life. He obtained the advantages of an academical course, and at the age of twenty-one, believing the profession of medicine to be the best adapted to his tastes and talents, he commenced study with Dr. Pillsbury,

of Pembroke, N. H., and finished his prescribed course of three years with Dr. Graves, of Deerfield, N. H. In the meantime he was a successful teacher of the public school — teaching one or two schools in this section of the State. He graduated at Dartmouth College in the Medical Class of 1824. We need not here recount his frequent anxieties, the sleepless nights, the thousand annoyances and vexations of student life. He had his joys as well as his sorrows. Others have trod as rugged path as he did, but not more successfully. Sufficient to say, in all the difficulties of acquiring a profession, he toiled with commendable perseverance and conquered all. Soon after his graduation he associated himself with his tutor, Dr. Graves, and practiced for nearly one year in the town of Deerfield.

In 1825 he was married to Miss Mary Jane, daughter of the late Dr. Robert Woodbury, a lady of elevated mind, of rare good sense, and possessed of many of those amiable and sterling virtues which made her a fitting companion for one just entering on the arduous duties of the practice of medicine.

In 1825 a new field opened itself to the young practitioner. The enterprise of the Great Falls Manufacturing Company had made to spring up a thrifty village by the name of Great Falls, situated in Somersworth, N. H., and the co-partnership of Dr. Graves and himself was dissolved, and he located himself in this village. The country about was rather sparsely settled, yet this little village had prospective advantages, and Dr. Martin showed his foresight and good judgment in selecting it as his field of labor — a field which he occupied successfully for nine years. From Somersworth he removed to Dover, N. H., where he remained till his death.

As a medical practitioner, it need not be said that he was eminently successful, for this is generally known. He excelled in the practice of medicine, rather than in the department of surgery. He was constantly in the pursuit of information connected with his profession — made himself familiar with the various improvements of the hour, and was thoroughly impressed with the dignity and high importance of the medical profession. Early in life he had linked himself, for good or for

evil, with the hardships and deprivations of medical men. He desired their prosperity and rejoiced at their success. He always felt injured at the calumnies and false steps of any one of his medical brethren, because he believed it detracted from the standing of his profession. Not only so, he labored with constant zeal to elevate his calling to its rightful standard among the other liberal professions. He was true to his chosen occupation; he cultivated it with industry, and throughout a professional career of nearly forty years, he clung to it with a fidelity that ought not to fail to elicit the warmest admiration and respect of his professional brethren.

In consultation he was gentlemanly, and never by his extensive experience took any advantage of the unskilfulness and want of knowledge of the attending physician. If errors in practice were discovered, he would so use the occasion that the friends of the sick one should not be dissatisfied with what had already been done. He never suffered the impression of his own long experience to predominate to the injury of his professional brother. The young practitioner ever found in him a constant friend, a safe counsellor, and in the difficulties of practice, he met him with a cordial greeting, ever ready to commu nicate to him some thought that would cheer him to higher exertions.

It was thought by some that Dr. Martin was of an unsocial nature, but in this there was a mistake. He was ever at his post of duty; seldom mingled in the noisy strife of life; and hardly ever seen in the street, or by the wayside, discussing the secular affairs of life. It was at his office, and by the bed side, that you would see the man, and learn to appreciate fully his character. Without, he was seemingly unapproachable; within, you would be treated with a kindness and a sociality that impressed you with the good qualities of the head and heart.

Dr. Martin was not only successful in his profession but he was honored in the political world. It is no disparagement to his character to say that he was ambitious and loved distinction. His tastes and manner of life, however, often led him

from the walks of the boisterous demagogue. His position fitted him to be a leader in the political strife. His opinions were in harmony with the masses and he was often looked up to, to guide to success. He was a democrat, and so adhered with one or two exceptions to the tenets of that party, as would convince others of his strong predilections to its principles. He was often named in connection with offices of trust. While at Somersworth he represented that town in the Legislature, and after his removal to Dover he was elected to the same position. In 1835–6 he was Senator of District No. 5, of this State. In 1852–3, he held the honorable position of Governor of New Hampshire. In all these offices he discharged the responsibilities with a fidelity to those who intrusted him with their suffrages.

Other positions in society he held, less renowned, but as honorable, because their positions go to make up the engrossing topics of life, and no one is entrusted with their supervision without possessing proper discrimination and good judgment as to the standing of individuals in the business world. He was long a Director in some of the most successful banking institutions in the city of Dover. He was a member of the New Hampshire and New England Historical Societies. He united with the Odd Fellows early in their organization, and was a consistent member of the Masonic fraternity.

Dr. Martin died suddenly at his residence, May 28th, 1863, being nearly sixty-two years of age. The disease which terminated his life was apoplexy. For several years past he had avoided the excitements of social gatherings, and the annual meetings of this Society, owing to certain symptoms of the head which had troubled him for a long time. Fifteen years ago he had been subject to paroxysms of palpitative and dyspnoea, particularly on taking violent exercise, and so troublesome were these symptoms, that often in going from his office to his residence, he had to stop by the way-side, and seek some support to keep him in an erect position. Of late these paroxysms had passed away, so that he was able to move about with more ease and rapidity, and engage with more comfort in the

business of his profession. Within a few years a new difficulty appeared, viz: premonitory symptoms of apoplexy. We remember, at the meetings of the Dover Medical Association and the Strafford District Medical Society, of which he was an active and useful member, he frequently complained of vertigo, dizziness and a difficulty in the head, so much so that he had to avoid the excitement of debate, the heated room, and the impurity of air too often found in places of public resort.

We think it may be safely said, that for years past there has been no abatement in his interest to engage in the work or the field he had so long occupied. At one time he had contemplated withdrawing entirely from active practice, but the importunities of friends often compelled him to go not where his heart was not, to the bed-side of suffering humanity. The day before his demise, he was apparently in his accustomed health. He remained in his office as late as ten o'clock in the evening in conversation with a few friends who had accidentally called to pay him, as it turned out, their last visit.

On the morning of his death, he arose without any difficulty or complaint. He partook of his breakfast as usual, and was in the act of adjusting his toilet, when symptoms of severe pain were felt in his head. At first he thought that in a few moments he would be better. He was with some difficulty got to his chamber, and while in the act of lying down, he remarked to his family, "Thank God, I am at home." Medical aid was sent for, but before any means could be employed he sank into a state of unconsciousness, and in the short space of an hour and a half after he was first taken, his spirit had taken its leave of the body. It had gone to his God and our God.

This sudden death, not unlooked for by the subject of our notice, for he had believed for years that he should be taken away without lingering disease, made a profound impression upon every class of citizens to whom he was known. It was a severe stroke to his medical brethren, and more so to his affectionate wife and daughters to whom he was tenderly endeared.

We offer the following preamble and resolutions expressive of our sorrow at this afflictive event:

Whereas, it has pleased the All Wise Ruler of the Universe to take from our number our highly esteemed associate, Noah Martin, M. D., and in order to give some testimonial of our attachment and respect for the deceased, for his worth as a citizen and his uniform kindness which he ever exhibited towards the members of the New Hampshire Medical Society, therefore —

Resolved, That in the sudden death of Dr. Martin this Society has lost a devoted fellow, the medical profession an honorable and faithful member, and the community an excellent citizen.

Resolved, That we will cherish with respect the memory of our late friend, whose example of devotion to the science of medicine and whose uniform urbanity towards his medical brethren should stimulate us to the practice of the same ennobling qualities in the discharge of our social and professional obligations.

Resolved, That in this hour of severe and solemn affliction we tender to his mourning family the solace of our sympathy.

Resolved, That the Secretary forward a copy of these resolutions to the family of the deceased, as a respectful expression of public sorrow at their loss.

T. J. W. Pray,
J. H. Smith,
R. Thompson,
} *Committee to prepare Resolutions.*

RESOLUTIONS ON THE DEATH OF DR. JOHN S. FERNALD.

Whereas, In the Providence of God, death has visited this Society since its last annual convention, and removed from us a faithful, efficient and esteemed brother-member, one who loved the profession, sought its advancement, respected all its usages and contributed to its honor, in the sick-room, in his intercourse with his fellows and in his public walk, never forgetting its importance, usefulness and dignity; therefore —

Resolved, That we feel deeply the deprivation of our departed friend and associate, Dr. John S. Fernald, whose presence has so constantly and so long cheered our annual meetings, and whose able co-operation has so essentially contributed to their interest and our improvement.

Resolved, That our late brother in his devotion to the profession, his careful investigation of disease, his anxious research for the most appropriate remedies, and his unfaltering aim at high practical attainments, has set an example worthy the imitation of every practitioner of the healing art.

Resolved, That we have an abiding sympathy with the members of the family of the deceased in this their irreparable bereavement, and have an undoubting trust that the widow's and orphan's God will console, cherish and guide them.

Resolved, That the foregoing preamble and resolutions be entered upon the records of this Society, and that the Secretary furnish a copy to the family of the deceased.

W. WATERHOUSE,
JEFF. SMITH,
C. H. SHACKFORD, } *Committee to prepare Resolutions.*

RESOLUTIONS ON THE DEATH OF SYLVESTER CAMPBELL, M. D.

Resolved, That the New Hampshire Medical Society has heard of the death of Sylvester Campbell, M. D., late Assistant Surgeon in the 16th Regt. N. H. Vols., with deep regret.

Resolved, That in his death the Society has lost a worthy and enterprising member, the community a valuable and highly esteemed citizen, an intelligent, kind and faithful medical adviser, and the church, of which he was an interested and active member, one in whom they could ever safely confide.

Resolved, That this Society offer to the bereaved and afflicted widow our heartfelt sympathy and an earnest prayer that she may be sustained by that Almighty Arm which alone can support in this her hour of sorrow.

Resolved, That a copy of these resolutions be forwarded by the Secretary to the widow of the deceased.

JAMES B. ABBOTT,
LUTHER M. KNIGHT,
CHAS. B. WILLIS,
} *Committee to prepare Resolutions.*

THE

TRANSACTIONS

OF THE

NEW HAMPSHIRE MEDICAL SOCIETY,

(SEVENTY-FOURTH ANNIVERSARY.)

HELD AT MANCHESTER, JUNE 28 AND 29, 1864.

CONCORD:
PRINTED BY WILLIAM BUTTERFIELD.
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PROCEEDINGS.

TUESDAY, June 28th, 1864.

THE Seventy-Fourth Annual Meeting of the New-Hampshire Medical Society was held in the City of Manchester, June 28 and 29, 1864.

The meeting was called to order by the President, P. A. Stackpole, M. D.

On motion of Dr. Pray, the reading of the records of the last meeting was dispensed with.

The report of the Council was read, and the following named gentlemen were elected Fellows of this Society:

LYMAN B. HOW, M. D., Manchester.
LEONARD FRENCH, M. D., Manchester.
I. N. DANFORTH, M. D., Greenfield.
LEVI P. DODGE, M. D., Sutton.
DAVID P. GOODHUE, M. D., U. S. N., Boscawen.
R. W. PIERCE, M. D., Seabrook.
J. M. FITZ, M. D., Warner.
GRANVILLE P. CONN, M. D., Concord.

On motion of Dr. A. B. Crosby, Dr. T. Wheat was appointed Treasurer *pro tem.*

Drs. A. B. Crosby, J. P. Bancroft, and Albert Smith were appointed a committee to examine credentials of delegates from other State Medical Societies. They reported Drs. Reynolds, of Concord, Mass., A. B. Hall and John T. Jarvis, of Boston, Mass., as delegates from the Massachusetts State Medical Society; also Dr. Jackson, of Hartford, Conn., as delegate from the Connecticut State Medical Society, who were introduced by the committee, and invited to sit with the Society and partake of its hospitalities.

The following committees were appointed by the chair:

To examine patients—Drs. Albert Smith, V. Manahan, William Leighton, A. F. Carr, J. P. Whittemore.

To audit the Treasurer's Account—Drs. A. H. Robinson, G. A. Crosby, and L. M. Knight.

On Nomination of Officers and Delegates for the ensuing year—Drs. J. P. Whittemore, L. C. Bean, T. J. W. Pray, H. Eaton, E. K. Webster.

To draft appropriate resolutions relative to deceased members:

On the death of Thomas Chadbourne, M. D., of Concord, Drs. C. P. Gage, A. H. Robinson, and L. M. Knight;

On the death of Charles Chase, M. D., of Deerfield, Drs. E. K. Webster, J. P. Whittemore, and V. Manahan;

On the death of Ellery G. Judkins, M. D., of Waitsfield, Vt., Drs. L. W. Peabody, L. C. Bean, and C. F. P. Hildreth;

On the death of Jefferson Smith, M. D., of Dover, Drs. T. J. W. Pray, I. W. Lougee, and J. H. Smith;

On the death of Daniel Adams, M. D., Drs. S. Cummings and Albert Smith.

At 12 o'clock the President, P. A. Stackpole, M. D., of Dover, delivered the Annual Address.

On motion of Dr. Webster, it was referred to the Committee on Publication.

The report of the Committee of Practical Medicine was read by Prof. Albert Smith, and referred to the Committee on Publication.

The report of the Committee of Surgery was read by Dr. A. B. Crosby, and referred to the Committee on Publication.

An oration by Dr. S. W. Roberts was referred to the Committee on Publication.

The report of the delegates to the Dartmouth Medical College was read, and after some discussion, on motion of Dr. Gage it was laid on the table.

The Committee on Nominations reported, and the following named gentlemen were elected officers and delegates for the uing year:

PRESIDENT:

JOHN CLOUGH, M. D., Lebanon.

VICE-PRESIDENT:

WILLIAM D. BUCK, M. D., Manchester.

SECRETARY:

NATHAN CALL, M. D., Suncook.

TREASURER:

THOMAS WHEAT, M. D., Manchester.

COUNCILLORS:

S. M. Whipple,
A. Bickford,
V. Manahan,
A. A. Gerrish,
S. Cummings,
S. W. Roberts,
William Leighton,
C. F. P. Hildreth,
D. P. Parker,
C. H. Kingsbury,
T. H. Marshall,
G. B. Twitchell,
W. H. H. Mason,
H. B. Burnham.

CENSORS:

G. Montgomery,
R. W. Pierce,
L. B. How,
G. A. Crosby,
Levi P. Dodge,
J. Danforth,
R. Thompson,
W. Darling.

DELEGATES TO DARTMOUTH COLLEGE.

J. P. Bancroft,
L. C. Bean.

ORATORS.

A. B. Crosby,
James Danforth,

SUBSTITUTES.

J. H. Wheeler,
H. B. Burnham.

STANDING COMMITTEES.

On Surgery, L. M. Knight, J. C. Eastman.
" Practice of Medicine, T. J. W. Pray, E. K. Webster.
" Epidemics, S. M. Whipple, A. F. Carr.
" Obstetrics, N. W. Oliver, J. P. Whittemore.

COMMITTEE ON PUBLICATION.

Nathan Call, C. F. P. Hildreth.

COMMITTEE OF ARRANGEMENTS.

N. W. Oliver, W. Laighton, T. J. W. Pray, J. P. Whittemore.

DELEGATES.

To Massachusetts Medical Society—Albert Smith, Harrison Eaton.

To Rhode Island Medical Society—W. D. Buck, T. M. Gould.

To Connecticut Medical Society—E. K. Webster, P. A. Stackpole.

To New-York Medical Society—J. P. Bancroft, C. F. P. Hildreth.

To Vermont Medical Society—John Clough, L. C. Bean.

To Maine Medical Society—C. H. Shackford, D. P. Parker.

To the American Medical Association—C. P. Gage, T. M. Gould, L. M. Knight, J. P. Whittemore, N. Call, L. C. French, C. Palmer, M. R. Warren, A. F. Carr, S. M. Roberts, A. B. Crosby, S. Cummings, L. C. Bean.

At 2 1-2 o'clock the meeting adjourned to partake of a dinner furnished by the physicians of Manchester, to meet again at 7 o'clock, P. M.

EVENING SESSION.

The meeting was called to order by the President, Dr. Clough, at the time to which it was adjourned.

The committee on Surgery made their report, which was referred to the Committee on Publication.

Dr. Crosby related a singular case of intersusception.

The report of the delegates to Dartmouth College was taken from the table. The report was accepted and referred to the Committee on Publication, with the exception of that part which recommended that Bachelor of Arts be admitted to be examined for a degree in medicine, after two years' study, action upon which was indefinitely postponed.

Voted, That the Treasurer of this Society be authorized to

have the Bartlett fund and its interest placed to the credit of the Society.

Voted, That all gentlemen who have prepared papers to read before this Society, and were detained from coming, forward them to the Committee on Publication, and they may insert them in the Transactions if they think proper.

On motion of Dr. Webster, the delegates from the Massachusetts Medical Society, Dr. Reynolds, of Concord, Mass., Dr. A. B. Hall, and Dr. J. T. Jarvis, of Boston, and Dr. J. C. Jackson, of Hartford, Conn., delegate from the Connecticut Medical Society, were admitted as honorary members of this Society.

On motion of Dr. Albert Smith, the following resolution was unanimously adopted by the Society:

Resolved, That the thanks of this Society be presented to the physicians of Manchester for their civility and courtesy in furnishing a dinner for the same; and the numerous attentions in making our visit to their city pleasant and profitable. Also that the thanks of the Society be presented to the Mayor and city authorities of Manchester for their attentions and civilities.

Voted to adjourn until to-morrow morning at 8 o'clock.

MORNING SESSION.

Wednesday, June 29.

Met according to adjournment—the President in the chair.

Voted to alter sect. iv., art. 2 of the by-laws, so that the fee on admission into the Society be five dollars, and annual tax four dollars.

Voted, That all members who pay tax annually be furnished with Braithwaite's Retrospect.

Voted, That Prof. A. Smith be requested to prepare a paper for publication in the next volume of the Transactions on the use and abuse of the speculum.

Voted, That the next annual meeting be held at Portsmouth, on the fourth Tuesday of June, 1865.

Adjourned.

THE ANNUAL ADDRESS.

BY P. A. STACKPOLE, M. D., OF DOVER,
PRESIDENT OF THE SOCIETY.

GENTLEMEN: Another year has winged its flight from the unread future into the well-known past, and we have assembled once more as brothers united in the pursuit of one common vocation for an interchange of opinion and experience, which I doubt not will prove to be for our mutual advantage.

In accordance with the custom of this Society, it becomes one of the closing duties of your presiding officer to address you upon some topic connected with the medical profession; in compliance with this duty, I propose to say to you a few words, and I trust they will not fail to convey to your minds the expression of my grateful acknowledgments for this distinguished token of your favor in selecting me to preside over your councils. When I call to mind those illustrious men, conspicuous in the eminence which they attained, who founded this Society more than seventy years ago, under circumstances of difficulty and embarrassment, oftentimes disheartening, which, with the surroundings of to-day we can hardly appreciate, I esteem it an honor of no ordinary degree to fill the office which your kind partiality has bestowed, of presiding over this ancient and honorable body. In 1791, the date of the first meeting of this Association, the facilities for traveling were not as well adapted to the requirements of the times as those of the present day; no iron rails with iron horse bore the traveler from the most distant sections of the State to its centre with almost fabulous speed, yet our sainted fathers will-

made no slight sacrifices of time and money that they

might counsel together—that they might be better prepared to mitigate the pangs of disease, give character and respectability to the profession, and protect the community against empirical pretenders. Bravely and nobly did they perform their part in illustrating and advancing their profession; and, gentlemen, your presence here to-day, your devotion to the pursuit of their choice, is evidence that you revere their memories, and emulate their example. Long may this monument of their erection stand in unity, beauty, and strength, as a perpetual memorial to the world of their noble exertions for the best interests of the profession, the preservation of the health and consequent happiness of community, and the harmony, usefulness, elevation and prosperity of their successors.

Now, as in early times, the medical man is, in a great measure, shut out from the pleasures of the world, for he can rarely leave his particular field of labor to participate in those recreations which other professions allow. With the issues of life and death involved in his presence, he seldom, if ever, finds opportunity, with the conscientious discharge of his high responsibilities to his patient and to his God, to enter into the amusements of life—therefore it is evident that the life of a physician who is faithful to his trust, is one of isolation, from the very necessity of his solemn charge.

But man is naturally social, and it is only in association that his nature can receive its full development, that the seeds of the better qualities themselves grow up under culture into their just magnitude and proportions. Our association brings together many from remote sections of the State, who otherwise would never meet, differing much in views, habits, thoughts, and experiences, each contributing whatever may have fallen under his observation of an unusual or difficult character in the phases or treatment of disease, thereby adding to the store of practical, medical knowledge, as well as to his individual, social pleasure. These views, habits, and experiences become enlarged and improved by association and communion, and as a natural consequence, such a reciprocity of

thoughts and feelings as we enjoy at our annual gatherings, developes our better nature, gives us new impulses, and fits us for the more perfect discharge of the duties of our sacred trust.

We come together partly, at least, for relaxation from the cares and toils of business, that we may meet friends of the same calling, with like sympathies and congenial interests. Each one of us naturally, but without design, turns out the fairest side of his character, "his silver lining to the sun," and all consequently make and receive favorable and kindly impressions. So in separating and going to our several homes after such social and intellectual intercourse, we carry with us friendly remembrances of one another, serving as so many ties not only to bind the members of the profession together in one concordant whole, but also intertwined with other similar agencies to counteract the centrifugal tendencies of our political system, and keep it moving onward symmetrically and harmoniously in its majestic course, shedding beneficent influences throughout its own great circle, and inspiring the respectful admiration and confidence of humanity every where.

The art of healing is of ancient date; from the earliest ages men have sought in some way to alleviate the pain of disease and prevent death. Hippocrates, usually called the Father of Physic, established a tolerably rational system of practice more than two thousand years ago, and shared with Plato the title of Divine. His reasonings were remarkably correct, especially when we remember that he had no knowledge of anatomy and physiology; but he in a great measure compensated for this deficiency by unceasing observation of diseases, whereby he obtained so much skill in pathology and therapeutics, that he has been regarded as the founder of medical science, and his opinions still influence the healing art in a considerable degree. The qualifications and duties required of physicians were never more fully exemplified than in his conduct, nor more eloquent-
described than by his pen. He displayed great simplicity,
or and benevolence, with unwearied zeal, in investigating

the progress and nature of diseases, and in administering to their cure.

In that early period, in that age of comparative ignorance of the human system, is it strange that many vague notions should have been cherished? and now, in this time of advanced knowledge and increased experience, can any suppose it to be an easy thing to control the issue of life, to arrest disease in its threatening career, or to reinvigorate the wasted frame? Is this living mechanism, and the powers that move it, so simple that we can easily determine what portion is defective, or can we measure how wide a departure from health must be fatal to life, or constitute disease?

A correct diagnosis is the foundation of a proper treatment of disease, and in order to make a correct diagnosis we must know the structure of the organism, its mode of development, its manner of support, its relation to external agents, their salutary and morbific influences.

Medicine, as we understand it, is the study of man, his diseases, and their cure. But what is man? He has been truly called a microcosm, a little world. He is material, for he has a body; he is vital, for he has life; spiritual also—all mysteriously united in one being. The body is organized; that is its most evident quality; it is a mechanism, a knowledge of which is the basis of medical science. The physician holds in his hands, in a degree, the powers of life and death; but death will some time come, for the almighty decree has gone forth, "that it is appointed unto man once to die." The elixir of life, so long sought, which promised the blessing of perpetual youth, has not yet been found. Death will surely come, and no mortal power can ward off its fatal shaft.

Therefore, from the beauty and glory of the creation we must turn to behold its ruins—discord for harmony—decay for growth—death for life; to see the noble figure of pure and God-like man exchanged for one in which the fire is well nigh quenched by earthly mists; to behold the form radiant with vigor and strength dimmed by sorrow and pain, its boasted

power withered before the breath of the destroyer; there is a time when knowledge, experience, and devotion are all in vain; each falls a victim to disease which no physician can cure, yet it is one of the holiest prerogatives of our art that it can mitigate and assuage, if it cannot heal, when nature opposes an impassable barrier to human power.

Knowledge has power—it is the corner stone upon which we build our skill and success in medicine; the foundation of all greatness; especially is this true in the practice of our art, for it is not a conjectural art as in early time, but has become a science clearly defined, established by an extensive induction of facts, the result of patient observation and careful investigation. The science of medicine is really an assemblage of facts ascertained by observation and a correct study of nature, and we are warranted in affirming that the treatment of disease has been successful in exact proportion to medical knowledge.

To repair a machine we must understand its construction, mechanism and working; so also with the human system, for man *is* a mechanism, the most perfect of God's work, and to keep it in order we must know its every part. To reason and think correctly in medicine, it is essential, first of all, that we become intimately and familiarly acquainted with the structure of the human body in health; hence without an accurate knowledge of anatomy and physiology, the man who prates of a medical theory, or dares enter upon medical practice, is not merely a knave, but a fool. The mechanism of the human body is infinitely more intricate and complicated than the most delicately adjusted machinery, and none but those who thoroughly understand its almost countless springs, their connection and their use, can estimate its aberrations from health, much less attempt its restoration, without madness or crime.

It is evident, then, that anatomy and physiology form the base of the pyramid of medical science, and according to the strength and extent with which this only sure foundation is *id, will be* the firmness of the entire superstructure; and he

that erects the fabric of medical practice upon any other basis, "builds his house upon the sand."

Dr. John Hunter, the father of British surgery, said to one of his students, "*These*," pointing to some dead bodies, "are the books from which the student will learn under my direction." His fame and brilliant success in life might be truly ascribed to his thorough knowledge of anatomy, which cost him years of unexampled hard study.

Morbid symptoms have been studied in the light of anatomical fact; the functions of the several organs, whose structure has been ascertained, have been made the subject of inquiry both in health and in disease; the power of remedies has been subjected to the test of experience during successive ages, their effects diligently observed and recorded, and by frequent repetitions discoveries made and defined with the certainty of actual demonstration.

The success of a physician depends very much upon his power of thought and discrimination. "As a man thinks, so is he," is a proverb as true as venerable, and no where is it more amply exemplified than in the practice of medicine. It has been well remarked that the prevailing theory of medicine in any country has an important bearing upon the population; for false theories in medicine have slain more than either war, pestilence or famine ever numbered among their victims.

The progress of medicine has been slow, and for a long period had no sure foundation upon which to stand; but since the discovery of the circulation of the blood by Harvey, in 1628, anatomy and physiology have been cultivated with diligence and zeal. Thus, rising from one discovery to another, anatomists appear to have reached the ultimate element of organization in the cell; and while advancing, they have illustrated the power and wisdom of the Creator, and shed more and more light upon the mechanism of those vital actions by which life is sustained, or by which, when they are perverted, life is destroyed. To a knowledge of the circulation of the blood was rapidly added all that simple mechanical methods

of investigation could reveal. The admirable correspondence of conformation and function was demonstrated. The process of nutrition was traced from the food in the stomach through its transformations in the blood, and into the very tissues it built up.

The nervous system, that mysterious structure which seems to be more closely allied with life than the rest of the organism, through which we have consciousness of existence, and hold relations with the external world, has been forced to yield a knowledge of its multiform functions in controlling and regulating all the actions of physical economy. Sir Charles Bell made some very valuable discoveries in this department of medicine, whose researches occupied his mind for a space of more than forty years.

Pathology, the science which examines the nature of symptoms, causes, variations and results of disease, has made very rapid progress of late years. To name the objects of this branch of science is to state its importance. Dr. John Bell calls it the complement of all the other branches, which are arranged around it as a common centre at unequal distances. The external signs of disease were noticed and studied somewhat by the older physicians; but without the aid of morbid anatomy they could know nothing of organic changes. In this department of our science we find great progress. The scientific, skillful physician no longer makes up an inaccurate diagnosis from symptoms alone, or external indications, especially of diseases of the chest, but by means of aus-cultation and percussion, decides with almost mathematical precision upon the organ that is affected, and even the extent of the ravages which disease has made.

Vaccination was unknown to the ancients, and it is only about three fourths of a century since the attention of Dr. Jenner was arrested by the casual observation of a country girl, who came to the office of his teacher for advice. She remarked in regard to small pox, "I can't take that disease, for I have had cow pox." This remark riveted Jenner's attention,

and after patient attention, study and experiment for about twenty-five years, he published his theory, which was at first ridiculed and bitterly opposed, but finally triumphed, rendering his name illustrious for all time.

Chemistry, also, which is comparatively of recent date, although we read of Joseph commanding his servants, the physicians, to embalm his father, whose death occurred seventeen hundred years before the birth of Christ, indicating chemical knowledge, is doing much in advancing medical science. By it we learn the composition of bodies, and the laws by which they act upon each other. It was long a mystery how bread could be transformed into flesh. This question has been solved. Chemistry has thrown down the barrier, has drawn aside the curtain, disclosing a spectacle so vast, magnificent and beautiful, that the mental eye is dazzled in beholding it. Organic chemistry casts a flood of light upon the dark places in physiology; its reagents penetrate deeper than the eye, deeper than the microscope, reaching the very lowest material elements of organic life, preparing a basis upon which pathology may erect a symmetrical and imperishable edifice. Whether occupied in the investigation of gases, salts, metals, the analysis of plants and their products, the chemist is contributing to the enlargement and perfection of our science. He shows us the nature and properties of medicine, exhibits to us many principles of the food which we eat, and the atmosphere which we breathe, whose influences in sickness and health are almost incalculable, improving our hygienic knowledge, and assisting us in examining the power of life and the effects of disease upon the animal organization, expanding thereby our physiology and pathology.

The microscope, also, has contributed much to the advancement of our science within a comparatively short period. Its revelations regarding the intercommunication between the veins and arteries, as well as those relating to the plasmas and corpuscles of the blood, cannot be without utility; rather can its demonstrations that all the ultimate tissues of the animal

body are composed of cells, that each individual organ has its peculiar characteristic cells, that these cells possess the wonderful property of appropriating from the plasma or nutrient portion of the blood, matters suited to nourish the organ to which they belong; that the nerves are tubes with a real fluid flowing in them, and that all the organized and unorganized fluids of the body are now successfully subjected to its analytical scrutiny. Thus has the microscope, too, made astonishing discoveries within that microcosm, the human frame, and undoubtedly it will continue its wonder-fraught revelations.

We find that practical medicine has made many rapid advances during the present century, although new discoveries and new theories at first were stubbornly opposed and denounced as madness, as in the cases of Jenner, Harvey, and others. But, gentlemen, let us ever encourage the true spirit of scientific inquiry and research; although fondness of experiment sometimes leads to innovations instead of improvement, yet the furnace of time will burn up the dross, and leave the gold pure. How much better is living water, though it swell and surge in tumultuous billows, and even dash to pieces, than a dead sea.

The living body, through investigation and oft-repeated experiment, has been rendered, as it were, transparent, so that the relations and play of the internal organs, the hindrances to their action, and their decay, have been made clearly evident to the senses, so that we may watch their changes as we do the movements of the busy bee at her incessant toil in her house of glass.

It has been discovered, not only that every organ is subject to peculiar modes of disease, but also every tissue, and the blood itself, has equally its own susceptibilities, its own pathological changes, and its own symptoms. It has been ascertained that morbid changes of structure are merely abnormal forms of nutrition; that the primary molecules or cells are the real seat of changes, and that the blood, in its chemical and physical organization, is most frequently the starting point

of disease, or the field upon which its principal changes take place.

Thus can we trace the stream of life from its more apparent manifestations in the organs, up to these microscopic and mysterious cells, whence it primarily springs; also with equal success can we follow the ravages of disease, from the outward lesion to its prime source in moleculer derangement.

Life is truly a mystery; bound on the one hand to matter controlling its forms and functions, and on the other, united to the spiritual and immortal part of our nature. We may speculate upon the analogy of the union as we will, but the solution of the mysterious link which binds matter and mind together, will only be ours when we shall have passed through the door that opens from the tomb.

Medicine, then, when carefully examined, is the study of the human mechanism in health and disease, in life and in death. Man is surrounded by many influences during his earthly career, some of which are salutary, and, indeed, essential to his existence; but many are hostile to his health, and even life; therefore, the two great subjects, etiology and hygiene, are brought to the consideration of the physician; the one inquiring into the circumstances which produce disease, the other into all the means of preserving and improving the health.

We find that disease existed since the earliest ages of the world, and that man naturally sought relief from physical sufferings by various expedients, especially by studying the medical properties of plants and the products of nature. Thus, if he is nauseated, he thinks he will be easier if he could vomit, and accordingly looks about for some means to fulfill his purpose. By careful experiment and cautious research, many remedies have been suggested which have been proved beneficial in the treatment of disease. For a long time, the treatment of symptoms by remedies constituted the whole art of medicine, for the ancients possessed no knowledge of anatomy, physiology, or pathology. Therapeutics were of little

account, and materia medica was much the same, until the alchemists, in their search for gold and a universal remedy for disease, laid the foundation of chemical science; and as medical science progressed, it began to offer the physician more certain weapons against disease.

There is no natural connection between medicine and disease; the one belongs to man, the other to external nature, and it is only through investigation that they have been placed in a reciprocal relation to each other, linked together by a scientific bond, only when the action of the one upon the other became fixed in its results. We speak of medicines as curative agents, yet are ignorant of the mode in which they cure disease; experiment alone has demonstrated the existence of curative virtues in a drug, and led to its employment as a medicine; this statement, which at first glance might seem improbable, is nevertheless true.

Medical science has made great progress since the days of Hippocrates; the physician of the present day has the experience of antiquity to guide him, as well as the light of modern science. Between the medical man of the Hippocratic times and our own, there is all the difference that there is between the sapling and the oak tree, between the brook and the river, between the morning dawn and noon day: it is a difference, however, of degree, not of kind. Man is the same being, sustained by the same powers, liable to the same diseases, soothed and cured by many of the same remedial agents that were then used; for what was true in medicine then, is still true, only vastly more has been added thereto than was ever dreamed of in those days. Behold the infant science grown to manhood, in full vigor and ample proportions; the sapling has become the mighty oak, putting forth wide-spreading branches, under whose shadow the nations find relief from pain, and a refuge from the destroyer.

Gentlemen, I have endeavored to show briefly the progress of medical science, its true basis, and the important and responsible position the physician occupies. What momentous

events depend upon his knowledge and skill! what glory and recompense await him if he guides aright! what shame and guilt, if he directs wrong!

But, gentlemen, let us never forget, in all our researches, in all our efforts to keep the vital machinery in health, in good working order, that the most glorious triumph of our art should be to prevent, not alone to cure disease. It is magnanimous to man the life-boat that bounds over the breakers, mid shoals and rocks, to rescue the shipwrecked; but is it not more philanthropic to rear a light-house as a beacon to warn the unwary vessel of the hidden rock, and bring her safely to her desired haven?

Gentlemen, you will pardon me for referring in this, the close of my address, to the present unhappy and unfortunate condition of our country, so saddening to our hearts as physicians, whose pride rests in perfect membership, full development, vigorous unity in strength in the body political, as well as the human body. The dark cloud that hung over our nation at our last anniversary meeting, we hoped would have passed away ere this. No hour so gloomy and sad were the people of this nation ever called to endure. We have seen and felt its desolating effects upon our country, our State, our homes, our civil rights, and our property; and now, after this long season of sorrow and suffering for the sake of restoring and preserving the best government that ever existed, which our fathers established at the expense of years of toil, sacrifice and blood, let us earnestly desire the return of peace, with which we were blessed in the years past. Let us rise above mere sectional prejudice and party feeling, and humbly, and devoutly imploring the guidance of that gracious Divine Providence, who sustained our fathers in the darkest hour of the Revolution, ask that we may be restored to peace again; peace in a restored union, and upon terms honorable to the North, and just to the South; upon terms that will leave us friends, and not enemies; peace before the North is exhausted, and the South is destroyed, so that the shores of the gulf and

the borders of the southern rivers may again wave with the sugar-cane, and be whitened by the bursting cotton; that in all that region we may find a remunerative market for the products of our northern lands, so that from the sources of the Ohio, Missouri, Mississippi, and their tributaries throughout their entire flow to the Gulf, there may be a united, harmonious and happy people, bringing reciprocal benefits through the exchange of all acts of kindness and growing commerce. Let us act with that regard for the constitution and the interests of the whole country, which is demanded of every son of the republic; and while our armies in the field have bravely performed their duty, let us now by all honorable means labor to restore peace founded upon just terms to all sections of the country; that true and welcome peace, which shall gladden millions of hearts in every part of the land, and which shall bring in loving embrace once more around the nation's altar all the States as equal sisters.

ORATION BY S. W. ROBERTS, M.D.

Our idea that to prepare an oration for an occasion like the present, one should possess a thorough knowledge of the subject written upon, and the ability to occupy the least possible space, consistent with elegance and perspicuity, especially since this Society publishes its Transactions, and they become a part of the medical literature of the day, for a long time deterred us from taking in hand the pen to perform, as best we might, the duty imposed upon us by this honorable body. Nor was this the only difficulty. For when we had bravely nerved ourself up to the task, and were determined that when called upon to perform the part assigned us, the response, "Not prepared," or the echo of silent walls, should not be our answer, the ever vexing question arose, upon what subject shall I write? What can you, a one-horse practitioner from among the hills of Carroll county, prepare, which shall in the least interest, much more instruct, the members of the New Hampshire Medical Society, a society composing some of the best medical talent of the State or of the United States?

We had at first, as our profession seems to be gravitating towards that organ, a strong inclination to take up uterine disease in general, believing, as we do, that one half of the ante and retroflexions and aerions, the procidentives, irritations, congestions and inflammations of the uterus, said to exist in our day, are all in the practitioner's eye, and that the consequent extensive use of caustics, pessaries and the like, are but too sad a humbug. But we had no opportunity of proving an iota of our convictions, the females in our circuit having no desire for the use of the speculum, or other unnatural instruments about their genetalia. So we thought to

assume such a position publicly, with a view to correct existing evils, would be as futile as for a stripling to stand on the banks of the Mississippi, and attempt to turn its waters back with a bit of bark. And we very wisely concluded to let the turbid stream roll on, with its dead horses, crocodiles, and mules.

Other subjects, like little clouds, flitted before the mind, till one, seemingly dark and heavy with thought, came before our mental horizon. We seized upon that, not that we knew any thing about it, but supposing an investigation of it might prove of some advantage to ourselves, if no one else. May we be permitted, then, to advance a few thoughts on the Theoretical and the Practical, their comparative value and appropriate sphere in advancing the science of medicine?

Adopting the definition that science consists in the real facts, the correct and distinct ideas, and the well-established general truths of any department of knowledge, classified and systematically arranged, might there not be some question whether, even now, medicine were such a science? The *real* facts, the correct and distinct ideas, and the *well* established general truths, are they not too few, even now, in our profession? It is, however, true, that as ours is a complex science, made up of several distinct sciences, that in some of its branches, real facts, correct and distinct ideas, and well-established general truths, classified and arranged, are found; as in Anatomy, which approaches an exact science, Physiology and Chemistry, and to a large extent Pathology? But when we come to Therapeutics, that branch of our science for which the others are mainly learned, where are the real facts, the correct and distinct ideas, and the well-established general truths classified and systematically arranged? Indeed, looking at the practice of medicine with an impartial eye, and seeing how much of it is contradictory and inconsistent, we are strongly inclined to believe, we say it modestly, and hope, if wrong, we may be pardoned the opinion, for we know our tendency to fly off on tangents, that we are all in a degree empiricists or

quacks. We labor, the best of us, much in the dark; some of us follow false lights; all of us practise our profession too much as a trade already learned, not remembering that the foundation stones of our science are but laid, that the superstructure is yet to be built. We still of this generation have a duty to perform in advancing our science, and to leave for those who come after us such legacies as have come down to us from our fathers. We have abundant means for doing this. For the past of medicine, though it unfolds to us many mistakes, still opens to us a rich store-house of facts, and furnishes reliable data, from which new facts may be discovered, new truths brought to light; and these must be discovered by theory and practice.

Previous to the time of Lord Bacon, there was but one process of reasoning, called the deductive, or Aristotelian, from its author. During this time medicine was styled "a weak and slender thing," consisting, as it did mainly, of vagaries and speculations mingled largely with superstition. Bacon's method was the establishing of ideas or conclusions from fact, as, perceiving that a large number of fish under all the circumstances in which a fish could live, had fins, the inference would be inductively that all fish had fins. On the other hand, the deductive method was the establishing of facts from conclusions or ideas, as, perceiving that all fish had fins, the deductive would be that all animals having fins were fish. The former reasons from the external to the internal, the latter from the internal to the external; e. g., perceiving that a certain number of individuals not in similar circumstances, from exposure to the disease had scarlatina, the inference would be that all others exposed to the disease would have scarlatina, and that it was contagious; or assuming that scarlatina was contagious, the deduction would be that scarlatina was contagious. The process of reasoning by the deductive method is rapid, but of uncertain results; the inductive method is slow, but of more sure results.

The deductive reasoner is full of expedients, versatile, hope-

ful; the inductive is observational, slow, plodding, matter-of-fact. Some minds are adapted to the one, and some to the other course of reasoning. The English mind is said to be inductive, the German deductive, and the French both. Hence the first is conservative and practical, the second progressive and theoretical, and the last practical or theoretical, according to circumstances. The American mind is naturally inductive, though troubled always to "wait." Women are more deductive than men, and hence better prepared to meet immediate and unexpected emergencies. As physicians, the deductive reasoner would be versatile, hopeful, more ready to adapt present means to present ends, the more likely to have a pill for every pain, and an answer for every question, saying nothing of its correctness, and the more popular among the ladies. While the inductive would be slow, cool, calculating, searching for the cause of every effect, not full of expedients, reticent, strongly inclined to doubt the curative effect of medicine, especially in his early experience, and more certain of execution. The former would be called the speculative, visionary man; the latter, the matter-of-fact, sound man. The former would be more acceptable to the *oi polloi*; the latter, to the *patient*, intelligent few. As applied to the various branches of our science, we should say that Anatomy was inductive, Physiology inductive and deductive, also teleological; while therapeutics, especially as practiced now, is deductive, high authority to the contrary notwithstanding.

Of the comparative value of the two methods in promoting the science of medicine, much depends upon circumstances, and much more upon the natural habits of the physician. We cannot see how either can be dispensed with. If the physician is only to be controlled by dogmas, and to pursue the beaten path of his predecessors under all circumstances, if he never finds himself obliged to make assumptions, and if he has opportunities to verify, by oft-repeated experiment, any preconceived opinion, if the aid of his books and the instructions of the schools, and his own experience are always equal to the

demands of the profession upon him, then may he drop theorizing altogether, and cling only to what is known. Such, we believe, is the position of very few active physicians. And when all known means fail, shall we calmly neglect all further effort, and let our patient die, because we have no precedent for pursuing a course of practice which seems to commend itself to our reason? Are we not then justified in experimenting—in theorizing? Besides, how are we to meet with new phases of disease, how comparatively new diseases, if we are to reason in regard to their treatment from facts and observation alone? And what is to be done with diseases whose cure has never, except in very few instances, been accomplished? We can see no starting point in such cases but theory. We are then like one who, after a long sleep, finds himself in the midst of a dense, unknown wilderness. The sight of the sun is shut from his view. There are no foot-prints to indicate that any human being has ever before passed that way. There are no paths, however obscure, to lead him to open fields, where is seen the hand of civilization, and where succor is sure. He must die where he is. Shall he resignedly sit down, and do so? or shall he assume that this, that, and the other is the right direction, and pursue it, though it lead him into impenetrable swamps, and to the base of insurmountable precipices, and he be at last so overcome with languor and fatigue as to yield his body a prey to the vulture and cormorant?

If not permitted to theorize, what shall he do with the tripod of disease which is the scourge of New England, typhoid fever, diseases of the throat, and phthisis? In the two latter, especially, what has been settled in regard to their treatment and cure? But shall we leave them to the unaided powers of nature, and unmoved see the teeming millions of every age crowd the house of death, because, forsooth, we have no facts to guide us; or shall we lay out our treatment on this, that or the other assumption, and pursue it, not to the detriment of our patient certainly, till satisfied we are on the wrong scent, and must seek some other?

Yes, we say, and are bold in saying it; assume in phthisis, that the disease has its seat in a deficiency of vis nervæ, and give your strychnia, generous diet, friction, pure air, and avoid every thing possibly tending to exhaust the nervous energies. Assume that the blood is deficient in phosphorus, and give your hypo. lopo., or any other phosphite. Assume that it is a direct result of pure assimilation, made imperfect by want of vitality and sufficient combustible material, and administer cream, cod liver oil, or whiskey; and if these theories fail, theorize again, again, and again, so long as we have no foothold but theory. And in that terrible scourge, diphtheria, we would say, give calomel, iron, or whiskey. Sponge, or not sponge the throat with caustics; the latter the better course probably, according to the idea of the practitioner of its nature, until something shall be established in relation to its treatment, and reduced to a science.

And have not many of the well-established and important facts in medicine, and other sciences even, had their origin in theory? It was a deduction that opened up to Harvey the true circulation, to Hall the reflex action of the nerves. It was a deduction that unfolded to Newton the law by which

> "The shining worlds above
> In glorious order stand,
> Or in swift courses move."

It was this that showed Kepler the motions of the planetary system. It was a deduction that made the bold adventurer of 1492 launch his frail barks upon the unknown deep, and follow his theory as directly west as if it had been a star of the first magnitude, directing him to the unknown world. It was more by deduction than induction that the power of steam was discovered, so that now the world is moved by it, and one has but to provide himself with a basket of chips and a kettle of hot water to move speedily to any part of it.

But theory should not take the lead. While the practical, like the husband, with brawny hand and powerful, by sure and oft-repeated strokes, removes the rugged forest and massive

stone, and makes his arable fields, the theoretical, like the wife with pleasant smiles, cheering voice and captivating song, versatile, suggestive, full of tact, should often be consulted and listened to, but never allowed to be mistress, or occupy the *front* side of the couch. And there are times, even when we know the way along the shore, but strive to secure our object on the opposite side, we have to thread our way over cragged rocks, through dismal swamps and dark ravines, we are rational in taking the shorter trip, though the lake be covered with fog, and the vessel in which we sail never *proved* seaworthy.

But we of to-day, Yankees especially, are an impatient, restive people, and in our hurried search for something new, we may so befog ourselves with theories and visions as to lose sight of some of the good "old paths" richly ornamented with garlands of truth. We should not forget that men have lived before us as virtuous and talented as ourselves; and while we profit by their mistakes, let us practise their virtues. And yet, though we reverence the past, and at our firesides, in our libraries, our daily rides, and, above all, in the sick room, we duly appreciate the rich legacies it has bequeathed us, let us not condemn, as absurd or theoretical, every thing that claims to be new. Such a spirit, if universal, would prevent all improvement, and carry us as a profession back to the time of Æsculapius himself. Let us rather treat the new fledgeling with paternal care, until its feathers shall fully demonstrate what sort of bird it is. Nor should we look upon every egg as addled, not laid in our own nest. Truth may come from an enemy. He is more likely to point out our faults than a friend. Should he do so, we should appropriate it as much to our benefit as if coming from our own fathers. We have thought that as a profession there was danger of our becoming too exclusive, underrating and discarding every fact even, not discovered in our own family. A man devotes his time to some specialty. He readily makes known to us the result of his investigations. We appropriate them as our own,

and yet exclude him from our fellowship. Is this just right, giving honor to whom honor is due?

Thus briefly, and clearly as we are able, have we endeavored to point out something of the comparative value of the theoretical and the practical, or reasoning from ideas and observation as facts, in the prosecution of our science, coming, as we think, to the just conclusion that the one is as indispensable as the other, our progress being necessarily very slow, if reasoning by induction alone is to be resorted to, there being so few good observers, and fewer still qualified to classify and draw correct conclusions from the facts discovered.

Of their appropriate sphere we need say but little. All theorizing, all experimenting, should be done, so far as possible, before coming to the sick room. But when all known means there fail, and our patient is not *in articulo mortis*, but sure to die unless some new expedient is resorted to, experiment, theorize there.

You have a case of intussusception. Your cathartics, lancet, opiates, douche, and electricity have failed. The idea strikes you that if the portion of intestine below the intussusception could be filled or fully distended with gas, the bowel might be lifted up and your patient saved. You have no authority for it. But place your patient on face and knees, introduce into the rectum the nozzle of a common bellows, and try it. If you succeed, you will be eminently practical as well as theoretical. Under such circumstances we say, try, and try again any thing which reason or the imagination can suggest. The grapple may be thrown into water deep and turbid, and the prospect of bringing any thing to the surface poor indeed, but the diamond of untold value may be fished up. Then should he who has the patience and perseverance thus to search for truth, be encouraged and cheered on in his labors, and not have his way clogged and hedged up, as it now too much is, by the old fogyism of our profession.

We are glad of the annual return of the meeting of this Society. We are glad, because here, with no cabalistic rites,

freed from the vexing opposing interests of daily life, where self makes us resort to all sorts of clap-trap, intrigue and impositions, constantly stirring up feuds, bickerings and strife, from all which science takes her leave, we may receive a kind visit from our goddess, and with washed hands and shaven heads, sincerely worship at her shrine. Now is our time. Now is our hour. May the spirits of the glorious departed hover around us, and aid us in our work. Duty to ourselves, humanity, and the memory of our fathers, demand that our undivided attention be devoted to it. And thus may we, the physicians of this generation, succeed in adding another firm layer of granite to the temple of our science whose foundation is now so nobly laid, and chisel our names so deeply in its strong columns, as that time shall not efface them.

STANDING COMMITTEE ON SURGERY.

GUN-SHOT INJURIES OF THE KNEE JOINT REQUIRING AMPUTATION.

BY A. B. CROSBY, A. M., M. D.

A good surgeon, says an old adage, should have an eagle's eye, a lion's heart, and a lady's hand. An aphorism as patent as this needs no demonstration; yet I hold it to be equally true that a good mechanic, with a reasonable knowledge of anatomy, may be a fair operative surgeon. But to affirm that such an one is a good surgeon, would be as absurd as to say that a body without brains is a perfect man.

Simply to amputate a limb may require qualities in which a neighboring butcher may excel a surgeon; but to judge correctly when the sacrifice of a member is necessary to indicate the time most favorable for operation, to execute it according to the instructions of one of old, "*Cito, jucunde, tutissime;*" and then to afford the poor sufferer the best means for recovery, all these necessitate a judgment as judicious as it is rare.

I propose to offer a few thoughts on gun-shot injuries of the knee joint requiring amputation.

Mr. Guthrie tells us that "amputation is the opprobrium of surgery, as death is of the practice of physic." Nevertheless, I am well persuaded from my own observation during the present war, that, while many limbs have been needlessly sacrificed, many lives have been lost from the hesitation of the surgeon—the result either of ignorance or timidity.

The surgery of the field is with propriety much more conservative than in former times. Still many gun-shot injuries so manifestly require the knife, that conservatism, in such instances, is ruin to the soldier and disgrace to the surgeon. It

may not then be inopportune if we consider some of those cases where the splint must yield to the catlin.

John Bell, whose name must ever be mentioned by surgeons with veneration, discourses thus: "As for a wounded joint, we may take the experience of all surgeons, which has established this as a true prognostic, that wounds of the joints are mortal." A more rational treatment of wounds, and a discontinuance of some of the barbarisms of surgery formerly practiced, has reversed this dogma of Bell. However, every surgeon tells us that wounds of joints are uncertain in their results, frequently disastrous in their consequences, and of a gravity which may well excite apprehension.

Throwing aside general injuries of joints, let us confine ourselves to gun-shot injuries of the knee. The ginglymoid and exceedingly complex character of this articulation, as well as its known irritability, must render any extensive injury of its mechanism pregnant with danger. In the field, not unfrequently, extensive destruction of the joint may have occurred, and yet the exterior of the knee present a natural appearance, save the small opening where the missile has entered. Such cases are among the most trying to the military surgeon. The soldier almost invariably refuses to submit to amputation, the injury apparently to his eye being so slight. The surgeon may hesitate, the golden opportunity be lost, and the poor victim may live, only to fall into the arms of death through the exhaustion of suppuration, or the shock of a secondary operation.

Slight injuries of this joint, it is true, may recover, under favorable circumstances, although injuries, seemingly insignificant, often prove fatal. Bear in mind, however, that gunshot wounds of the knee joint are always severe, and that in the field the soldier must submit to the rough transportation of ambulances, without suitable means of treatment, and that many days may elapse before he may reach a place of rest where the proper appliances can be made. There is no class of wounds where the surgeon should be so decided in his opinion,

and should act so promptly, as in these. I believe that the observation of those who have had the most extended opportunities in the present war, will bear me out in this assertion.

All authorities are agreed in this matter. McLeod tells us that in the Crimea he visited every case of this description that he could hear of, and his testimony is especially valuable. "I have never," he says, "met with one instance of recovery in which the joint was distinctly opened, and the bones forming it much injured by a ball, unless the limb was removed." My own experience of fifteen months in the army, as well as the testimony of many intelligent military surgeons with whom I have conferred, abundantly corroborates the statement of McLeod.

The same authority further states, that although returns show alleged recoveries, he had reason to doubt the correctness of the diagnosis. In all cases where fracture of the epiphysis was made out, death was invariable unless amputation was resorted to.

At first sight one would suppose that the diagnosis in these cases would be easy, while, in point of fact, many instances are exceedingly obscure.

At the Fair Oaks, a soldier belonging to a Pennsylvania regiment, on whom I performed an excision of the left elbow joint, had likewise a wound in the right knee. There were two openings on the sides of the joint nearly opposite each other, one apparently a wound of entrance, the other of exit. Several surgeons saw this case, and, on a casual inspection, decided that the ball passed through the cavity of the articulation. The man being under the influence of chloroform for the excision, a thorough examination of the knee was made, when it was found, to the satisfaction of the surgeons present, that the track of the wound passed around the anterior aspect of the knee. It proved to be sub-cutaneous, and the cavity of the joint was unopened. This patient was sent to one of the hospitals in the rear, and I am not sure that he may not appear in some future report as an example of con-

servative surgery in a wound of the knee joint. Should this prove to be the case, it may be the death warrant of many a brave fellow who really has a penetrating wound of this articulation.

In case the wound is from a minie ball, there is little doubt as to the nature of the injury and its necessities, such wounds being always attended by an extensive destruction of tissue. With the round ball the case is different. It may enter the condyles of the femur, or the head of the tibia, or it may pass near the capsule, and yet in neither of these instances open into the cavity. The track of the round ball may be sub-cutaneous, as in the case already alluded to, swelling may occur from the contusion, and if the case is not seen for some time, the symptoms may seem to indicate a destructive wound of the joint.

Another occasion of doubt to the surgeon may arise from the fact that so long a time may elapse before signs of inflammation supervene. I have met with cases in which the parts appeared natural for a period of from five to ten days, and then fatal inflammation ensued.

The causes of the inflammation are sufficiently evident if we remember the extreme delicacy of the synovial membrane, the introduction of air into the cavity, with its attendant degeneration and the closely compacted tissues of the organ. Other causes are to be found in the large expanse of bone involved, the ease with which purulent absorption may take place, and the difficulty of escape of foreign matter.

In civil life wounds of the knee are usually made by cutting instruments. No foreign bodies are introduced, and under favorable circumstances immediate union and recovery may occur. During the past year a young farmer came under my professional care, who, in falling from a cart, drove the tine of a fork into the right knee joint. The synovia escaped, air entered the joint, indicated by a peculiar churning sound in walking, and the case seemed of the gravest character. Firm bandaging of the joint from above and below, the air thus being

forced out, rest, the recumbent position, and a strict antiphlogistic regimen, gave the man a rapid recovery, without a single untoward symptom.

Balls, however, are lodged as foreign bodies. The contused track of the wound must suppurate, and the air gains constant access. The consequent degeneration is great; foreign bodies cannot be removed, and thus a wound, seemingly trivial, brings the soldier to a desperate extremity. At first no signs of mischief are evident, and the wounded man and his attendants are lulled into a false security. Generally in a week or ten days, inflammation supervenes. In its track there follow long, wasting suppuration, abscess, pyemia, a typhoid and hectic condition, and the inevitable tendency to death. The peculiarity of abscess in these cases is that it forms in the muscles of the thigh, and in many, if not most, instances has no connection with the joint. Sometimes these purulent collections are overlooked, but are none the less dangerous. The pus burrows, the bone is denuded of its covering, and the acrid fluids escape into the areola tissue. In my observations, these collections always occurred in the thigh. Late in the history of the case, there are the usual appearances of white swelling. From what has been said, it may be inferred, that if the articulating extremities have been fractured, there is no resource which offers the soldier any reasonable chance for life save primary amputation. I leave out of the account the question of excision of the knee joint, since, in operations on the field, so much rapidity is required, and the facilities for subsequent treatment so poor, that in my judgment the excision of so large a joint does not afford the same chance for life as an amputation, especially if performed low down. The weight of authority is strong in favor of primary amputation. In the Crimea, the French and English surgeons were agreed in this matter. McLeod saw forty cases in the French hospitals in 1854, all of which died except those who submitted to primary amputation.

It seems, sometimes, cruel to a soldier to lose a limb when

there is only a small wound in the knee, no pain, and to *his* eye, at least, no danger. Innumerable observations, however, are our most reliable guide. The surgeon, perhaps, feels diffident lest he be accused of a desire to "mutilate God's image," and so practices a dangerous conservatism—dangerous, because the facilities for after treatment are wanting in these cases, which even in civil practice are problematical.

Guthrie has seen no case recover without amputation. Larrey reports some successful instances; but they were from slight injuries. Esmarch says, "All gun-shot injuries of the knee joint, in which the epiphysis of the femur or tibia has been affected, demand immediate amputation of the thigh. It is a rule of deplorable necessity already given by the best authorities, and which our experience fully confirms."

The pathological appearances in these cases are pretty constant: there are usually all the signs of chronic disease about the joint, with the addition of an injury. The cartilages may be eroded, the synovial membranes degenerated, and more or less pus present.

Occasionally, recoveries may occur; but even in case of slight injury, the treatment is eminently unsatisfactory. In the most favorable cases the patient must possess a sound constitution and have the best surroundings. At the best, the recoveries are imperfect, and the previous suffering protracted.

"Thinking only of this wonderful recovery," says John Bell, "the surgeon willingly forsakes an uncomfortable rule to lay hold on this one glimpse of hope; while, indeed, if he reasoned fairly, he would perceive that the exception should be lost in the fulness of the general rule, and not the general rule disturbed by the exception."

On the same point, Guthrie says, "If one case of recovery should take place in fifty, is it any sort of equivalent for the sacrifice of the other forty-nine? Or is the preserving of a limb of this kind an equivalent for the loss of one man?" Other authorities might be adduced upon the same point.

The history of cases is significant in this connection. I will

briefly advert to four cases which came under my observation after the affair at Ball's Bluff, at which time I had the honor of being Division Surgeon on the staff of that much abused, but gallant soldier, Gen. CHARLES P. STONE.

CASE I.

Private Sibley, Co. H, 15th Reg. Mass. Vols., was wounded on the 21st of October, 1861, in the left knee, the lower extremity of the femur being fractured. This case came under my observation some days after the engagement, and inflammation had already supervened; pus formed among the muscles of the thigh, and burrowed. The constitutional symptoms were grave, and this soldier, having previously been addicted to excesses, broke down rapidly. Primary amputation was not suggested by the surgeon who first dressed the leg, and his pulse never warranted a secondary operation. His tongue became brown, dry and cracked; the pulse was rapid, and small; he was delirious; emaciation occurred rapidly; the skin grew sallow, dry and harsh; the wound was sloughy, with no sign of healing; pyemia developed; the discharges were at last involuntary; and on November 5th, towards the close of the second week, this soldier died by asthenia.

An autopsy showed a round musket-ball, lodged in the lower extremity of the femur, with fracture. The external wound was small; the swelling of the knee was inconsiderable, and most of the pus was in the muscular interspaces of the thigh. This case was left mainly to nature, the injury apparently was insignificant, and yet it moved steadily on to a fatal issue.

CASE II.

Corporal J. S. Paul, Co. H, California regiment, was wounded in the right knee joint. The regiment to which this man belonged was raised in Pennsylvania, but received its name in honor of Gen. Baker, who commanded the brigade, and who perished on this ill-starred expedition.

Corporal Paul was wounded late in the day, and passed most of the night on Harrison's island, in the Potomac. He

came into the Division Hospital at five o'clock, on the morning of the 22d of October. There was no perceptible shock, and the man himself regarded the injury slight. There was a small wound on the outside of the right knee, but no swelling, and no tenderness. A probe, however, passed into the joint, and on being moved about, gave evidence of injury to the head of the tibia.

I informed him that the limb must be sacrificed. Although opposed to the operation, he yielded his opinion to mine with a good grace, and I amputated at once low down, the patient being under chloroform. This was the first of several amputations in the same ward which I did in rapid succession on that morning; and the cheerful submission of Corporal Paul exercised so good a moral effect on the others, that each seemed to vie with the rest in the coolness and cheerfulness with which they submitted to the knife.

On opening into the joint in this case, I found that the base of the outer condyle of the femur was injured, and that the cup-shaped cavity, corresponding on the head of the tibia, had been penetrated by the ball, breaking off some small fragments of the bone, and lodging near the base of the spine of the tibia. As little shock followed the amputation as the injury, and the soldier made a most rapid recovery. In two weeks all the wound, except two or three small points, was entirely united. At the end of three weeks he got on to crutches, and required no further treatment.

In this case the injury was, to all appearance, insignificant; yet I feel confident that, left to itself, it would have eventuated badly. The wound penetrated the joint, inducing fracture; the amputation was primary, and the case speedily terminated in recovery.

CASE III.

Private Peter Shubert, Co. G, 15th Reg. Mass. Vols., was wounded in the right knee at the same time as the two preceding cases. During the night of October 21st, I saw this case on Harrison's island, and expressed the opinion that amputa-

tion would be necessary. There was no opportunity to do it at that time, however, as orders had been issued to clear the island of all wounded before day break in anticipation of an attack; together with the rest of the wounded, he was taken across the stream to the Maryland shore, placed on a canal boat for Edwards' ferry, a distance of six miles, and thence on an ambulance five miles to Poolesville, where he was placed in a hospital under the charge of Assis't Surgeon A. J. Baxter, U. S. A. Shubert absolutely refused to submit to amputation, saying that several surgeons had examined the wound on the island, and all expressed the opinion that the limb could be saved, except myself. No amputation was performed.

The wound was small, and situated on the outside of the right knee, inclining to the front. With a little assistance he could stand on the leg, and there was no pain nor tenderness. For a week no untoward symptom showed itself. During the second week, however, slight swelling occurred about the knee, which extended rapidly up the thigh, where it became decided. Constitutional symptoms developed rapidly, attended by emaciation. The pulse was over one hundred, the tongue heavily coated, the skin hot and dry, the appetite gone, the bowels constipated, and the general look cachectic. He complained of intolerable pain when the limb was moved, and there was much tenderness about the knee and thigh. About the fourteenth day, the patient complained of rigors, and it was evident that suppuration had taken place in the fleshy part of the thigh.

Being much interested in the result of this case, I ordered the man to be sent to the Division Hospital, where I at once made a puncture into the inside of the right thigh, about three inches above the knee joint, and evacuated a quart of pus. The knee and thigh were then enveloped in a poultice, and the patient put on a strongly tonic and nourishing plan of treatment. The heat of the skin diminished a little, but the other symptoms grew steadily worse.

On the twenty-first day after the injury, the patient pre-

sented the following appearances: the pulse was a hundred and twenty; the tongue dry; the skin alternately dry and moist; there was a tendency to delirium and diarrhœa; and the emaciation, cachectic look and exhaustion had steadily increased. Every thing seemed to indicate a speedy and fatal termination of the case.

Disheartened by the unsatisfactory results of secondary amputations, I hesitated to suggest an operation. A remark of the patient decided me. "I wish," said he, "I had taken your advice at first, and had the leg off, then I should be well like Paul," at the same time pointing to one of the preceding cases, the subject of which was already on crutches in the ward.

Not wishing to increase the inevitable shock of the operation by any mental depression, I concealed from him my purpose, and told him I would put him to sleep, and perhaps the ball might yet be extracted. The preliminary preparations having been made outside the ward, I entered alone, and without any suspicion he took the chloroform kindly, and was soon sound asleep. The attendants immediately came into the ward with the necessary instruments, &c., and I amputated by the double flap, near the junction of the middle with the upper third of the thigh. The femoral artery was admirably compressed by Rev. Mr. Scandlin, Chaplain of the 15th Mass. Vols., a high-toned gentleman, whose practice in this case, as well as elsewhere, was as good as his preaching, and that was far above the army standard. Two medical gentlemen assisted me, Brigade Surgeon D. W. Hand, of Minnesota, and Assistant Surgeon S. Foster Haven, of the 15th; the latter, unfortunately for the service, since killed, having fallen a martyr to his professional zeal at the battle of Fredericksburg.

As soon as the artery had been carefully compressed, the limb was elevated for a short time, so as to drain it of its venous blood. The amputation was then done quickly, going above the inflamed muscles, and the vessels were tied without letting up the compression, so that the loss of blood was tri-

fling, less, I think, than in any amputation I have ever seen. Nevertheless, the shock almost destroyed him. At one time respiration ceased, he became pulseless, and seemed moribund. Irritation of the epiglottis with my finger, a sudden draught of air, and the dropping of raw whiskey into the mouth, had the effect of re-establishing these functions. He aroused from the chloroform with a pulse of one hundred and forty, and was profoundly astonished on being informed that his leg was off. Plenty of sutures were employed, and the stump elevated with a simple water dressing. A regular relief of nurses was established, by which he had constant attendance night and day for several weeks. Brandy and beef extract were exhibited every hour, and morphia to relieve pain.

At the end of twenty-four hours the stump had suppurated, and the odor was so offensive that gangrene seemed imminent. I removed the stitches, permitting the flaps to gape, and applied a cloth wet in whiskey to the raw surfaces, with a disinfectant. This was changed every two hours. The pulse was still one hundred and forty. The patient looked feeble, was delirious, and sang and whistled with all the vivacity of a Frenchman.

On the third day after the amputation, the patient vomited some bilious-looking matter, and had an exacerbation of fever. The femoral vein became rapidly swollen and tender. He looked weak and irritable, and had a small, rapid pulse; but he had a good appetite, and there was no pain, no sickness.

The ligatures all came away within five days, but the flaps still looked unhealthy, being covered with a partially disintegrated lymph, and the discharge was very offensive. The same dressing was applied to the stump as before, and a spirit lotion with opium over the vein.

During the second week, the skin was hot and dry, the pulse more rapid and compressible. He complained of pain in the other leg. His tongue was heavily furred; he vomited again at intervals, and the pain and tenderness over the femoral vein were pronounced. The vein itself was now nearly as large as

the index finger, phlebitis evidently had occurred; Shubert became extremely sallow and cadaveric; the skin presented a yellow, earthy tint. During the third week, diarrhœa supervened; the pulse ranged from one hundred and forty to one hundred and fifty; the skin was covered at intervals with an offensive moisture, and the exhaustion and delirium seemed to threaten a speedy dissolution.

During these three weeks, brandy and quinine, with beef extract were exhibited every hour without fail. The dressings were renewed every two hours, and the utmost attention was paid to cleanliness and ventilation. When vomiting occurred, injections were resorted to, and sponges, saturated with quinine and alcohol, were kept in the axillæ.

For twenty-one days I confidently expected that Shubert would die; his emaciation was extreme, and when asleep, he looked wholly inanimate.

Early in the fourth week some slight signs of improvement showed themselves. The pulse came down to one hundred and twenty, the tongue, which had been brown, dry and cracked, softened and grew moist. The skin assumed a more natural look and feel; the bowels moved naturally, and the appetite began to waken up. Bright red granulations soon appeared through the dirty white shreds of lymph on the flaps, and the femoral vein lost its tenderness, and, to some extent, its swelling.

He was now convalescing, but very slowly, and did not seem safe until six weeks after the amputation. At the end of three months from the time he lost his leg, he was able to hobble out of his ward. I heard of this man in Canada a few months since. He sent me a kind message, and the assurance that he was now entirely well, having had no trouble since I saw him last, save from some exfoliation of the bone.

An examination of the joint in this case, after amputation, showed that a round musket ball had entered the articulating surface of the external condyle, the bone being only slightly

splintered. It seemed incredible that an injury apparently so slight, should have resulted so disastrously.

I have been thus minute in describing Shubert's case, because it is the only instance of a secondary amputation, after gun-shot injury of the knee, followed by phlebitis, that I have known to recover. Mr. Guthrie relates several similar cases, where secondary amputation was followed by phlebitis, and in all a fatal result ensued.

CASE IV.

A soldier of the 20th Mass. Vols. got a wound of the knee joint in the same engagement as Shubert. Inflammation followed, and the man's condition was very similar to that of the case last described. A secondary amputation was done by the accomplished surgeon of the regiment, Dr. Hayward, but the man died by asthenia.

Cases like those I have just described could be multiplied indefinitely from the experience of army surgeons. I have related them somewhat in detail, because I believe that each of these instances embodies an aphorism in military surgery, which the surgery of all wars corroborates. The points which I would impress are these:

1st. That gun-shot injuries of the knee joint involving the articulating surfaces, or complicated with fracture, are inevitably followed by a destructive inflammation, an extensive suppuration, mainly in the thigh, a typhoid condition, and death. The case of Private Sibley is an instance in point.

2d. That such injuries of the knee joint require primary amputation, and the previous condition of the soldier having been good, and the shock moderate, a favorable result may be assumed with confidence, as in the case of Corporal Paul.

3d. That secondary amputation, after suppuration has occurred, may save the soldier, as in the case of Private Shubert, but is much more likely to result fatally, as shown by the last case adverted to.

I am well aware that the above propositions may seem to advocate a harsh principle, yet it has a few exceptions, which,

however, like all exceptions, only prove the rule. Thus a compound fracture of the patella may occur, and yet the remaining bones of the articulation be uninjured. In such instances it is good surgery to wait.

A ball may strike the centre of the patella, and pass through the joint between the condyles. Under such circumstances the limb will generally be lost, since the spine of the tibia is very liable to be fractured, and the crucial ligaments, with their synovial covering, lacerated. If the popliteal artery happens to be divided, there cannot be the shadow of a doubt as to the propriety of immediate amputation.

Sometimes a ball may enter the cavity of the joint, and not injure the articulating extremities. If it can be removed without inflicting further injury, the limb may be saved; but the ball remaining as a foreign body, there will be no resource but the knife. Without doubt a ball may lodge in the reticulated structure in the articulating extremity of either bone, and the cavity of the joint not being opened, recovery take place. If, however, the synovial membrane is ruptured, the leg will be lost.

Of course, injuries of the knee which partake of the character of incised wounds, whether made by a ball or a cutting instrument, admit of delay. Such, so far as I am aware, are the only instances of gun-shot injuries about the knee, which hold out any hope to the conservative surgeon. Even in the majority of these instances, the soldier only too frequently comes to regret that amputation was not done at the outset.

It only remains that I should allude briefly to the plan of treatment most favorable for recovery when an effort is made to save the limb. In no class of wounds is a strictly antiphlogistic plan of treatment more essential than in these. Of all the necessary conditions for recuperation, absolute rest is most to be insisted on. Unfortunately, battles are not fought for the convenience of wounded men or surgeons, but to gain a position and defeat the enemy. Thus it often happens that the sufferer is left in a most inaccessible locality, whence he

must be removed by the litter, and perhaps for days trust to the tender mercies of ambulances, railroads and steamboats. When at length he reaches a general hospital, the period when rest was so absolutely essential has passed, and the fires of a destructive inflammation are almost certain to have been lighted up.

The soldier must breathe only a pure air, and he must be placed in a position wholly free from endemic diseases. Any neglect of these conditions must render the whole treatment abortive. The limb should be placed on a straight splint, and some authorities advise enveloping the knee in ice, maintaining it persistently many days. This plan of treatment has been much insisted on by the French surgeons. The application of the ice, however, is to be cautiously made, since otherwise the depression of vitality in the integument of the part may result in gangrene. For myself, I prefer applying a piece of linen wet in equal parts of the saturated tincture of aconite and the tincture of opium. This may be repeated as often as the cloth becomes dry, or the knee hot. Very early after the injury, this dressing may be covered with oil silk with advantage. The more completely the natural processes of the part can be quieted or benumbed, the less the liability. If, however, inflammation supervenes, leeches should be applied freely and repeated often if the symptoms persist. Evaporating and anodyne lotions should be constantly applied, or the ice, as the indications may seem to warrant.

For the first few days the diet should be low; but I am well satisfied that, as a general rule, gun-shot wounds do not bear starvation well. Sedatives and evacuants are to be employed *pro re nata*. Pus having formed, early evacuation is to be promoted, and the constitutional treatment should be tonic and supporting.

Finally, the hereditary tendency of the soldier is to be taken into the account. A rheumatic, gouty, syphilitic, or strumous taint may, if disregarded, render all conservative efforts of no avail. And above all, in deciding for the soldier in these

cases, let us bear in mind that a gun-shot wound of the knee is worse than a corresponding lesion of the ankle, the shoulder, or the elbow.

I cannot, perhaps, more fittingly close this paper than by transcribing the brief but significant record of a case related in the able and instructive "Commentaries" of Mr. Guthrie:

"Col. Donnellan, of the 48th regiment, was wounded in the battle of Talavera, in the knee joint, by a musket ball, which gave him so little uneasiness that he could scarcely be persuaded to proceed to the rear. At a little distance from the fire of the enemy, we talked over the affairs of the moment, when, tossing his leg about on the saddle, he declared he felt no inconvenience from the wound and would go back, as he saw his corps was very much exposed. After he had staid with me for a couple of hours, I persuaded him to go into the town. This injury, although at first to all appearance so trifling, proceeded so rapidly as to prevent any relief being obtained at last from amputation, and caused his death in a few days."

Hanover, N. H., June, 1864.

DEFECTS IN MODERN PRACTICE OF MEDICINE.

BY ALBERT SMITH, M. D., OF PETERBOROUGH,
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I PROPOSE to offer a few remarks upon the defects of the present practice of medicine; and this I do the more readily, not on account of the delinquencies of the profession, but because I believe that our faults are not fairly stated; that we are better practitioners than we are represented, or appear to the world, and in a tolerable degree are availing ourselves of all the advantages that the advance of our art affords. In looking back upon the ancient practice of medicine, we may truly congratulate ourselves on our present condition and standing. We see that a real permanent advance has been made, yet, nevertheless, with all our improvements and facilities, how slowly we improve! how imperfectly we apprehend and apply all the new discoveries in our art! and how dull of apprehension we are as to what is yet unknown and obscure! As I propose to speak of the short comings and faults of the practice of medicine, permit me to say at the outset, for fear of any misapprehension, that nevertheless I hold the profession in the highest estimation, and that I consider the physicians of the present day better qualified, better trained and disciplined in this art, more sagacious, considerate, and skillful than any our country has ever seen. As a general rule, I am proud to say,—and the experience of the present disastrous struggle of our country has only added new evidence to the fact,—that they are men entirely devoted to their profession, who fear no dangers of malaria or bullets in the discharge of

their duties, and who act as though their services were never to be remunerated by money. Now do such men do justice to their noble profession and to themselves? In what do they fail, and what are their most glaring errors, it may be well to consider.

There is great failure on account of the want of accurate knowledge in regard to the location and nature of disease. There is more fault in this respect than would at first sight appear. It is impossible to practice the profession unless our knowledge of it is accurate. No loose, superficial view will suffice; no imagination will make up for reality; nothing but certainty or positive fact will do. We must know all the diseases, with their various distinctions from each other, their peculiar modes of development, and their various treatment. With the most accurate knowledge there will often be confusion in distinguishing one disease from another, and difficulties enough without an inexcusable ignorance in the case. Now no one could make out any disease of the brain who had forgotten or never knew the various diseases of that organ. He would be mortified to begin with a disease he called an inflammation of the meninges, and have it unmistakably turn out as tuberculous meningitis. So no true diagnosis, even with the most careful observation, can be made without accurate knowledge.

Every prescription presupposes a careful diagnosis, and on this point we too often fail. We are too indifferent or lazy to thoroughly investigate every given case; a press of business, or the difficulty and obscurity of the disease, and the great labor and care required may deter us. In the French hospitals, when a man is sent in for a severe pain in the deltoid muscle only, he is examined thoroughly from head to foot, and often in these slight cases the gravest diseases are diagnosticated; such as incipient phthisis, renal and heart diseases, and organic affections of other parts.

A correct diagnosis is indispensable to the physician, and the habit should be early contracted of looking sharply at

every thing that comes under our inspection, of carefully fixing the character of the primary affection, and making out clearly all the manifestations and complications that attend it. It would not be agreeable to name a disease by some of its complications, and then subsequently have to retract our opinion, and acknowledge that we were mistaken. It would be injurious to our reputation. This is not easy at first; but in time the physician acquires in these investigations what almost seems an intuition; he is in the whole possession of his case with a very few questions or a very slight examination. His practiced eye, as we say, looks through a man, he hardly knows how, but at once he arrives at the right conclusion. We have to acknowledge our aid in this matter to the new discoveries of the greatest importance in our art. How we should grope our way in darkness without the aid of auscultation and percussion, and how inefficiently examine or understand many diseases without the important discoveries in pathology.

How the older physicians attained so much accuracy without these important aids—how they did so well, is only another illustration of men using all their light to the very best advantage. I am always deeply impressed with the wonderful sagacity and knowledge of Hippocrates, when I read almost any medical work. His aphorisms, diagnoses, and prognoses in disease stand out now a guide to this age as they did two thousand years ago.

I must now advert to another deficiency in modern practice. I mean the neglect of the profession in keeping up with the modern discoveries in pathology. I am often much disturbed to find the old and obsolete names still retained in some of our best journals, when it seems to me that in all such works they should be entirely ignored. It is like using the old names in chemistry applied to the various articles when discovered, which the new nomenclature has entirely abolished. But how shall men in active and distracting business keep up this acquaintance? It is too lamentable that many physicians never cultivate any habits of study, who read, if at all, only in a desul-

tory manner, without any plan of study or investigation. Such men, making no pretensions to knowledge, sustain themselves by their tact and experience, but are poor representatives of a learned and scientific profession. A progressive art like ours, requires a large amount of reading to keep one thoroughly advised as to all its improvements and discoveries. I do not see how any kind of a medical man can dispense with some good medical journal, or with Ranking's or Braithwaite's Retrospect in these times. We can learn from these, all the passing events in relation to our art, the various topics discussed, and the numerous points selected, and in what direction it would be profitable to push our inquiries farther. I think it is not visionary to say that the time is coming, when, in consequence of the extension and long-continued investigations and autopsies of the German pathologists, Rokitansky, and others, a new system of pathology and nosology will prevail, one vastly more simple, natural and rational; one too, which, founded on such an immutable basis as diseased structure, will lift our profession to a high eminence. This will not bring ease and quiet to the practitioner, but a necessity for greater study and labor; we hope that he cannot long move in the old easy way; a profession so changing and progressive requires constant vigilance on the part of its followers that they be not left in the rear in this great advance.

Do I touch upon a tender point when I talk of the indolence and neglect of study so common in our profession? Is there a single man who reads and studies as much as he might, or developes his powers to the full extent of his capabilities? With good culture we should not see such a miserable and loose pathology as is now so common in practice. Men not knowing the true explanation of disease, are obliged to resort to some exploded fiction of former times, or to invent some fanciful theory of their own. It is the custom of some, to adopt the popular doctrine of humors, as an explanation of disease. Physicians who are considered respectable, who look and act as though they knew something, are even now, at the

present day, solving disease in this absurd manner. It is vastly clear and satisfactory to the people, although no one I ever saw yet, could tell what it meant. Practitioners who adopt this absurd course, either because it is easy, or they are too indolent or too ignorant to properly investigate their cases, deserve to be read out of the profession. I have seen others, who were very *hi-falutin* in explaining disease, which was all as inexplicable to the hearers as it was unmeaning to the speaker, who, nevertheless, kept on his high heels, till the disease was fully developed, when some of his high sounding phrases were interpreted to mean the very disease which was then developed. With a little nice management, with wise looks, and a very special care that he was not committed to any particular disease, he comes out in the end a knowing man, when he has done nothing but successfully conceal his ignorance. Now others, who are not guilty of much acquaintance with Wood or Watson, and to whom Rokitansky, or even the beautiful little work of Stille on Pathology, are sealed books, acquire the habit of working off this whole matter in some set phrases, so that you could tell to a certainty, when any given disease appears, just what such a man would say. Some yet deal largely in inflammations; others resort to congestions; and others still to an irritability of various organs as a source of disease. Many are in the habit of attributing all disease to an imperfect digestion; others again make the *liver* the pack-horse of all human infirmities, and so on, different men making investigations more or less perfect, agreeably to their knowledge and understanding. Many a practitioner, I think, would not like to see his talk about a disease somewhat obscure, and his explanation about it, brought to light verbatim by modern stenographers. Now all this is too bad; it is derogatory to our profession and belittling to ourselves. It need not be, if we made it our inflexible rule in every case to thoroughly investigate every disease, whether slight or grave; and if we would prescribe only after such an examination, how soon all this unmeaning verbiage would be scattered to

the four winds. Many years since, the late Dr. Twitchell was summoned to a court in Hillsborough County, to testify in a given case. His testimony was the wonder of the day, for he gave it in such a plain, clear, common sense manner that every body understood him. No one then expected to understand a physician. He was supposed to be unable to talk without his hard names and inexplicable terms. It was the peculiarity of this great man, that he could bring clearness out of obscurity, popularize even difficult subjects so as to make the people comprehend and understand the disease as he saw it. This excellence we should all strive to attain.

I must be brief in speaking of the use of remedies. These are our instruments for good, our enemies say for evil. Are there any faults here? The great fault is a too lavish use of medicine. This has been our heir-loom from all antiquity, even from Hippocrates himself. It has been the doctrine of the books, the schools, the old fathers, and rightfully did we come by the infirmity. Young men proverbially have great faith in medicine; their prescriptions are full and elaborate; they open the attack upon disease with their fifty and one hundred pound Parrott guns, and give repeated broadsides till the malady is all blown to flinders, or the poor patient begs a truce to such heroic warfare. The older men are more like a friend of mine, who had seen nearly his fifty years of practice, his advice to a young physician, who told him that it did not matter much what he gave, provided it did no harm. I believe there is a constant tendency at the present time to diminish the use of remedies—a greater desire to use them only when indicated, and even then sparingly and carefully. It seems strange to us that in times that are past, so little account should have been made of the principles of hygiene, that fresh air, pure water, and a careful, well-regulated diet, were considered only as accessory agents, while medicine alone could eradicate disease. How often have we been admonished by charlatans of our defects in these particulars! The Thompsonians endeavored to remove disease by acting on the skin

directly, imitating nature in many of her processes, and often, too, with much success. The Hydropaths operated with the simple agent of water, but often with an ingenuity and good effect that was astonishing. The Homœopaths have also had their successes by their supreme devotion to the goddess Hygeia, leaving the *vis medicatrix naturæ* to act undisturbed. The profession, given over to dosing, was slow to adopt even the few grains of truth that these systems of charlatanry contained. I am happy to say that in the great progress of our times, new and more expanded views have been adopted, that new light has pervaded the whole medical mind, and our profession now stands out, not merely as an art to medicate with drugs, but as a science worthy of the highest aspirations of the human mind. Men now think, deliberate and reason, and use their best judgment and common sense in the administration of medicine. And if occasionally it is largely administered and a great variety of articles used, it is only to meet the demand made on us by the people, who still insist upon being freely medicated. They hold in derision a careful doctor, and resort to and laud those who deal in the heroic administration of remedies. But it becomes us to be forbearing, as we led them into the great error of the humeral pathology, and also initiated them into the free and heroic use of medicine, and then outgrew these errors ourselves. It will be a slow process to bring them back to a right understanding on this subject, and the slower, as there seems to be almost, as it were by nature, a moral obliquity in these persons to the worst and the most ultra forms of quackery.

There is still another fault of which I would speak, a tendency to fall into a routine in practice. Men weary of the efforts of constantly studying and inventing new methods and plans in the administration of medicine, and so readily fall into a certain order and course in the use of their remedies. So when any disease appears, it is no new prescription that is used, but the same that has often been tried before, and it goes on like clock-work, each article in the appropriate time and

place, presenting the appearance of a vigorous attack on the disease. There is no wear and tear of intellect, no wearing away one's self with searching and painful examinations, no prying into the hidden secrets of the animal economy; the prescription comes without effort—it is a matter of course—it is what has been done a thousand times before. But is it adapted to the case? In the number and variety of the articles used, some may be suitable, and if the patient does not amend, the physician can only say that it is not for him, or any one else, to expect that all cases will terminate alike successfully. He is liberal with his drugs, for these, occupying the place of tact and intellect, are pushed with industry and perseverance as long as the patient remains sick, or till death kindly releases him. He is careful that every remedy, in any way indicated by the disease, shall be administered, anxious only that no omission be made of the slightest article ever used or applied. Then has he done his whole duty, and if the patient will not recover, he cannot help it—he had all the chances that the profession could afford. He forgets that discretion often is the better part of valor—the non-doing, vastly more safe and judicious than the over-doing.

I will allude to but one topic more, the servility and subserviency of the profession to the popular will. It seems to me a glaring fault. How many physicians at the present time, possessing a good address and an accurate knowledge of human nature, and with, perhaps, respectable attainments, anxious for all the business near them, and capable of doing much more than they can get, are in the habit of resorting to all the paltry arts and intrigues of the charlatan, to their own disgrace and the dishonor of their calling! No true man will for a moment contend with the weapons of these pests of society for his share of the business; he will never make his way by catering to the prejudice, ignorance, or caprice of the people. His course will be open, manly, and upright. It is his province, in all matters of health and disease, to direct public opinion. He will be led by no vitiated or reckless notions of

the people, by no public mind in medical matters. Nor will he be swerved one jot or tittle, by any prospect of success, from the true teachings of experience and science. Physicians should not be so anxious for business that they will put themselves on a par with every thing that now-a-days bears the name of Doctor. If they will not respect themselves and their profession, who can? Our profession is too noble to be prostituted to the low passions and caprices of a vitiated public opinion. We need have no feelings of servility—we dishonor our art and ourselves by such an unworthy course. We are the exponents of a calling that should be respected and well sustained. We hope the time is coming when the medical profession will occupy its true place in society; when all the quackery, ignorance, and pretension, which have so long infested the world, will be banished; and this beneficent calling, which is adequate to all the wants of suffering humanity, will be generally received and respected.

REMARKS OF DR. REYNOLDS,

OF CONCORD, MASS., DELEGATE FROM THE MASSACHUSETTS MEDICAL SOCIETY.

MR. PRESIDENT:

A long time ago, I will not say how long, I had the honor of meeting with this Society. It was when Muzzey and Oliver were at Hanover, and Twitchell at Keene, when Adams was at Mont Vernon, Luke Howe at Jaffrey, and the venerable Spaulding, now the oldest physician within my knowledge, in New England, was doing a large business at Amherst; when Pierpoint was at Portsmouth, and Perry at Exeter, and the elder Crosby at Gilmanton. They constituted a noble phalanx of men, who would do honor to any society in the civilized world. Their influence is still felt, and their names will be handed down with that of the patriarch Nathan Smith, their teacher and exemplar.

I also had the honor of being a member of the Merrimack County Society when Job Wilson was its President, and Rogers, of Boscawen, its Secretary. This was away back—not in pre-Adamite times, but so far away, that I presume but few of those present have any personal recollection of the men I have mentioned. There were then on the stage, in addition to these, Dr. Peter Green of Concord, and Dr. Lerned of Hopkinton. I remember assisting at the post mortem of Dr. Lerned. He insisted that he was dying of disease of the liver, while his attending physician was equally positive that his disease was in his right lung, and it turned out that they were both right. There was a large abscess in the inferior lobe of the right lung, and another in the liver, and both the lung and the liver adhered to the diaphragm. This last organ was

perforated by ulceration, and a communication thus formed between the liver and lung.

Dr. Peter Green, at the age of eighty, rode a venerable bay horse. For many years he was physician to the State Prison. This was when the first Captain Pillsbury was warden. Dr. Green did not believe in Homœopathy, but gave good, honest doses that did execution. You may imagine how he would have received Dr. Hammond's order repudiating the use of calomel and antimony, when I tell you that he used to go to the Prison with a box of pills, each consisting of five grains of calomel and one of antimony; and when the inmates consulted him, he almost uniformly administered one of these pills. He said this generally did the work, and if it did not, it left a clean field for further operations. Dr. Morril was at Goffstown, and Dr. Farrar at Derry, where Dr. Bell soon after commenced business.

Since my return to my native State, I have noted with much interest the doings of this Society, from year to year. When it was voted, at the annual meeting of the Massachusetts Medical Society, last year, to send delegates to this Society, the President, who is my next door neighbor, was kind enough to nominate me as one of them; and it is with much pleasure that I appear here, to present the greetings of that Society to you, Sir, and to the members of this Society. Permit me here, Sir, to express the wish of the Society that I have the honor to represent, that an interchange of representatives should annually take place. We believe it will not only be a source of pleasure to those who may have the good fortune to be delegates, but that it will contribute to the advancement of medical science. These two Societies are neighbors and coworkers for the advancement of science and the cause of humanity. Their members belong in common to the great republic of letters; and what is more, Sir, they have mingled their influence, their labors, and their blood in the service of our common country. The surgeons of Massachusetts and New Hampshire, in the field and the hospital, have, by their

skill and fidelity, earned a good name, and deserved well of their country. The lamented BELL we claimed in common. He was yours by birth, and ours by adoption; and in his life and in his death an honor to us both. And there are many other men in all the professions, in the labors of education and science, and in all the avocations of life, in whom the Granite State and the old Bay State claim a common property. And in every part of the Union the men of these States have stood shoulder to shoulder in the service of our common country. I have never yet heard of a physician in Massachusetts, and of but one in New Hampshire, who did not sustain the cause of the Union, and support with heart and hand its legitimate government. More than two hundred members of the Massachusetts Medical Society are in the service of the country, and among them many of the most prominent young men who have graduated within the last twenty years. I do not know how many members of your Society have gone into the same service; but I have no doubt the physicians of New Hampshire have sent a full share of their sons to the succor of the brave men from this and other States, who have shed their blood to maintain the integrity of the Union, and to put down this wicked rebellion. I have a son who was sent to the front at Port Hudson, in charge of the ambulances amidst a shower of bullets, who worked in carrying the wounded men to the rear till ten o'clock at night, and then worked, cutting out bullets and dressing wounds, till he was tired. And I can sympathize with fathers here and elsewhere, whose sons are in the same work. All honor to these sons; and when it shall be said of them, "in the place of the fathers are the sons," they will stand in their lot, and nobly discharge the duties of their high and honorable calling.

But, Sir, I must not indulge my feelings in this direction, and with a repetition of the greetings I bear from Massachusetts, and an expression of my personal wishes for your individual happiness and prosperity, I will close my remarks.

REPORT OF DELEGATES.

YOUR Delegates, having performed the duties pursuant upon their office, would herewith submit the following report:

Having been notified, conformably with previous custom, of the close of lectures and examination at the Medical Department of Dartmouth College, we arrived at this distinguished seat of learning, October 28, and almost immediately on our arrival the examination commenced; and we are gratified to say that we met with more than our expectations could reasonably warrant, as regards the size of the Medical class, also the Graduating class, and the extensive means and appliances requisite to a successful pursuit of the art and science of medicine.

Of the sixty young men, of which the class consisted, twenty-seven, or nearly one half, presented themselves for an examination and a degree. Each were brought singly before the Faculty, and each Professor interrogated them upon those branches taught by himself. Your Delegates attended to, and assisted in all these examinations, and obtained the most convincing evidence of the thoroughness of their instruction by the familiarity evinced in their exposition of the principles of medical science. And all of these were admitted to the profession by the Faculty with the unqualified approbation of your Delegates.

While making a few observations during our short stay at this institution, with regard to the choice and rare specimens, models, and drawings, the anatomical cabinet, and wet preparations, and casts in the department of general pathology, and surgical pathology, with the museum of materia medica

and medical botany, combined with the obstetrical and chemical departments—with all of which this institution is so abundantly furnished, to illustrate to the eye and to the understanding the various branches of medical science—we were impressed deeply with the conviction that our own institution would compare favorably, if not in many respects superior, to many of those whose location being in a city, and far away from our country homes, have sprung so rapidly into popular favor, and enticed away so many of our young men from the State, who are pursuing a course for medical honors. If any one doubts this, he has only to compare the men, for mental calibre and scientific attainments, furnished to the several professions from the several departments of old Dartmouth, with an average number from any of the city schools. The truth is, if any thing has aught to do with young men who resort to the cities to pursue or to complete their professional studies, it is, that a name may supply the deficiency of means; or in other words, that they may become blown into popular favor, rather than to rise to that most desired position by true merit and laudable enterprise. An occasional resort to a city for pleasure and amusements, is not without its advantages to acquire a knowledge of men and things; but for the pursuit of letters, a more retired but prospective country village is far more desirable and profitable. Thus we may see the man of letters, delighted with the prospective, the beautiful, and the sublime, the scenery of the country, of nature in all its purity and simplicity—while the man of business is inclined to, and hovers about the city, and is delighted only with its busy marts, high pinnacles, and lofty domes. If city schools afford any additional advantages over those situated in the country, it is simply the opportunity afforded of an occasional or regular visit to some marine or city hospital. And in the opinion of your Delegates those visits cannot be made to be very profitable to the medical student, unless an opportunity is afforded at the same time to make, or to see, actual prescriptions, and to witness their effect upon the patients. But

this, alone, is a very meagre set-off to the attractive scenes and classic halls of old Dartmouth.

We cannot, therefore, but repeat the oft-expressed opinion, that our own Medical School is second to none in the country in its facilities for imparting medical knowledge, and in the ability of its Professors. Nor can we refrain from expressing our appreciation of the kindness and courtesy with which your Delegates were treated by the gentlemen of the Faculty.

At the close of the examination and graduating exercises, the Faculty passed, unanimously, the following vote, with a request that it be laid before this Society by your Delegates:

That all Bachelors of Arts shall be admitted to an examination for the degree of Doctor of Medicine after a study of two years.

T. J. W. PRAY, } *Delegates.*
S. M. WHIPPLE }

REPORTS OF COMMITTEES ON DEATHS.

JEFFERSON SMITH, M. D.

The subject of this notice was born in Berwick, Me. His education was obtained mostly in the public school and the academy. His parents were respectable, of limited means, and hence the reason that their son was not liberally educated. In 1829, he commenced study with that eminent practitioner, Dr. Burleigh Smart, of Kennebunk, Me., and graduated at Bowdoin College in the Medical class of 1832. He first commenced practice in Gray, Me., and remained there for about one year. In the latter part of 1833, he removed from thence to Sanford, Me., and settled at Springvale, a thriving village in that town. He remained there about four years, and then began practice in Dover, N. H., where he successfully labored in his profession, with but little interruption, till his death. He died of that terrible malady, diphtheria, May 17th, 1864, at the age of 56.

Dr. Smith was a well-read physician, gentlemanly and courteous in his intercourse with his brother physicians, and was, for the past few years, growing in high esteem as a medical man. He was a safe and wise counsellor at the bed of sickness, and beloved by his employers. Few men had firmer friends or stronger patronizers.

Whereas, since our last annual meeting, it hath pleased the all-wise Controller of human events to remove from our Association an honored and worthy member, Dr. JEFFERSON SMITH, of Dover; and whereas, amid these frequent and solemn admonitions, it behoves us, as a Society, to acknowledge

the hand of a wise Providence, and to bow in humble submission at these afflictive and sorrowful dispensations of One "who doeth all things well," therefore,

Resolved, That this Society laments the sudden death of Jefferson Smith, M.D., feeling itself deprived of the counsel and noble example of a worthy member—one who by his uniform kindness and brotherly courtesy always won the esteem of all his associates—one who was endeared to a numerous circle of friends, and beloved in the social as well as in the public walks of life, and one who was devoted to the high and ennobling aims of the true physician.

Resolved, That we tender to his afflicted widow and family our heart-felt sympathy in their bereavement, and would commend them to the support of that Being who can console in the deepest hours of affliction.

Resolved, That a copy of these resolutions, signed by the Secretary, be forwarded to his sorrowing family as an appreciation of our respect for a deceased husband and father, and beloved associate.

T. J. W. PRAY,
JOSEPH H. SMITH, } *Committee.*
I. W. HOUGEE,

CHARLES CHASE, M. D.

Whereas it has pleased the all-wise Ruler of the universe to take from our number, by sudden death, our much respected and highly esteemed Fellow, CHARLES CHASE, M. D., therefore,

Resolved, That in the death of Dr. Chase this Society has lost an efficient and devoted Fellow, the medical profession an honorable and faithful member, and the community in which he dwelt a beloved and Christian man.

Resolved, That we will ever cherish the memory of our late associate, whose example of fidelity to the science of medicine

and uprightness of character should emulate us in the discharge of our professional and social obligations.

Resolved, That we tender the surviving members of the family of Dr. Chase an expression of our warmest sympathy in their deep affliction.

Resolved, That the Secretary forward a copy of these resolutions to the family of the deceased, and that they be entered upon the records, and published in the Transactions of this Society.

E. K. WEBSTER,
J. P. WHITTEMORE, } *Committee.*
V. MANAHAN,

ELLERY GLIDDEN JUDKINS, M. D.,

of Waitsfield, Vt., late of Claremont, died of diphtheria, on the 29th day of June, 18[illegible].

After graduating at Dartmouth Medical College, in the class of 1853, he spent a year and a half at Blackwell's Island Hospital, N. Y., as assistant physician. He then commenced the practice of medicine in Claremont, where he remained until the breaking out of the war, when he received the appointment of assistant surgeon in the navy, and was assigned to duty upon the Morning Light. After six months, he left the service, and settled in Waitsfield, Vt., where he immediately entered into an extensive business, but was soon cut down by death at the early age of thirty-three.

In view of the removal of Dr. Judkins thus early from our circle, be it

Resolved, That we have heard with sorrow of the early death of Brother Judkins, who bid so fair to be an ornament to the profession he had chosen, and which he so dearly loved.

Resolved, That we tender our heart-felt sympathies to the young and bereaved widow, and to his aged and widowed

mother, who are so suddenly deprived of an affectionate husband and dutiful son.

Resolved, That a copy of these resolutions be forwarded by the Secretary to the family of the deceased.

L. W. PEABODY,
L. C. BEAN,
C. F. P. HILDRETH, } *Committee.*

Manchester, June 28, 1864.

TRANSACTIONS

OF THE

NEW HAMPSHIRE

MEDICAL SOCIETY.

(75TH AND 76TH ANNIVERSARIES.)

PORTSMOUTH, JUNE 27 AND 28, 1865.
HANOVER, JUNE 5 AND 6, 1866.

MANCHESTER, N. H.:
PRINTED BY C. F. LIVINGSTON.
1866.

TRANSACTIONS

OF THE

NEW HAMPSHIRE

MEDICAL SOCIETY

(SEVENTY-SIXTH ANNIVERSARY),

HELD IN HANOVER, JUNE 5th & 6th, 1866.

MANCHESTER, N. H.:
PRINTED BY C. F. LIVINGSTON,
1866.

PROCEEDINGS.

TUESDAY, JUNE 5, 1866.

THE annual meeting of the New Hampshire Medical Society was held in Hanover, on Tuesday and Wednesday, June 5th and 6th, 1866.

The Society was called to order by the President, W. D. BUCK, M. D., of Manchester.

The following committees were appointed by the Chair:

Committee to examine credentials of delegates from other State Medical Societies, and introduce them to this Society. — Drs. L. G. HILL and R. P. J. TENNEY.

Committee on Nominations. — Drs. DIXI CROSBY, J. C. EASTMAN, C. T. P. HILDRETH and L. M. KNIGHT.

Committee to Examine Patients. — Drs. A. B. CROSBY, L. C. BEAN and L. B. HOW.

Committee to Audit Treasurer's Account. — Drs. G. A. CROSBY and S. L. F. SIMPSON.

The Council recommended the following named gentlemen, who were elected Fellows of this Society:

MOSES RUSSELL, M. D., Sutton.
DAVID S. CLARK, M. D., Derry.
J. W. WILSON, M. D., Contoocookville.
C. H. BOYNTON, M. D., Lisbon.
S. P. CARBEE, M. D., Haverhill.
JAMES WHITAKER, M. D., Windham.

Dr. C. F. P. HILDRETH read an oration, which was referred to the committee on publication.

The Treasurer's report was read by Dr. WHEAT, and accepted.

A paper prepared by Prof. ALBERT SMITH, of Peterboro', by request of the Society, was read and referred to the committee on publication.

An address was delivered before the Society by President SMITH of Dartmouth College.

Voted, That the thanks of this Society be extended to President SMITH for his able, interesting and instructive address, and that it be published in the transactions.

Dr. A. H. ROBINSON of Concord, committee on surgery, read his report, which was referred to committee on publication.

The report of Dr. TWITCHELL, delegate to Dartmouth Medical College, was referred to committee on publication.

At half-past twelve o'clock the President, W. D. BUCK, M. D., delivered the annual address, which was referred to committee on publication.

The following delegates from other State Medical Societies, HIRAM CORLISS, M. D., of New York, J. C. JACKSON, M. D., of Connecticut, J. N. STILES, M. D., of Vermont, and J. A. GRAVES, M. D., of Newport, having been introduced by the committee, made very interesting remarks.

The committee on nomination reported, and it was voted that the Secretary deposit the report as a ballot, whereby the following named officers and delegates were *elected for* the ensuing year:

President.—R. P. J. Tenney, M. D., Pittsfield.
Vice President.—A. H. Robinson, M. D., Concord.
Secretary.—Nathan Call, M. D., Suncook.
Treasurer.—Thomas Wheat, M. D., Manchester.

Councillors.—S. Cummings, I. H. Crombie, B. F. Skinner, H. B. Fowler, L. B. How, J. F. Hall, A. B. Crosby, Ezra Carter, G. A. Crosby, D. T. Parker.

Censors.—J. F. Brown, R. W. Price, J. Danforth, W. Darling, T. H. Currie, L. P. Dodge, R. Thompson, G. Montgomery.

Delegates to Dartmouth Medical College.—Thomas Wheat, S. L. F. Simpson.

Standing Committees.—*On Surgery.*—A. B. Crosby.
On Practice of Medicine.—L. C. Bean.
On Publication.—N. Call, L. B. How.

Delegates to other State Medical Societies.—*Massachusetts.*—Dixi Crosby, P. A. Stackpole.

Rhode Island.—N. W. Oliver, A. H. Robinson.
Connecticut.—S. L. F. Simpson, L. M. Knight.
New York.—J. P. Bancroft, G. A. Crosby.
Vermont.—Dixi Crosby, John Clough.
Maine.—L. G. Hill, T. J. W. Pray.
New Jersey.—E. K. Webster, L. C. Bean.

Delegates to American Medical Association.—G. B. Twitchell, C. F. P. Hildreth, A. Smalley, P. A. Stackpole, T. H. Currie, W. H. H. Mason, L. French, J. C. Eastman, C. P. Gage, A. B. Crosby, W. D. Buck, C. H. Boynton, J. F. Hall.

Committee of Arrangement.—T. Wheat, G. A. Crosby, L. B. How.

Voted to adjourn at half-past two o'clock to meet again at four. Met agreeably to adjournment. President Ten- in the Chair.

TRANSACTIONS

OF THE

NEW HAMPSHIRE

MEDICAL SOCIETY

(SEVENTY-SIXTH ANNIVERSARY),

HELD IN HANOVER, JUNE 5th & 6th, 1866.

MANCHESTER, N. H.:
PRINTED BY C. F. LIVINGSTON,
1866.

PRESIDENT'S ADDRESS.

FELLOWS OF THE NEW HAMPSHIRE MEDICAL SOCIETY:

An apology from one who has had a year in which to prepare an address, does not come with very good grace. But for the past ten months, in consequence of a disease of one of my eyes, I have been able to read or write but a short period at a time without great suffering, and it is only within the past few days that I have decided to address you. Had the duty not devolved upon me by virtue of my office, I should have shrunk from the task. If, therefore, what I have written be fragmentary, this is my excuse. But were it not for this physical inability, the attempt to address you on this occasion and in this place, would greatly embarrass me.

It is about a third of a century since I was a resident of Hanover, and it has ever been to me a source of regret that I had not availed myself of the opportunity to enroll my name with the alumni of Dartmouth. Every day of my life I feel more and more the need of that mental discipline which a college course bestows.

Since I left this place, a generation has passed away; the dwellings around this common have other inmates; these chairs are filled by other men; of the former occupants, but one remains with whom to associate the Dartmouth of '33 — a venerable man, upon whose brow Time *has set* his seal, so changed in appearance, and yet pre-

serving an intellect as fresh and vigorous as ever, a monument of his own industry and purity, and a beacon to light up the pathway of the hundreds who have sat at his feet. I say *preserving* his intellect; it has not preserved itself; to be vigorous, it requires nourishment as well as the body. The mind will not grow old with the body, if properly cared for. It was not made to decay; although subject to derangement at times, it will never die, and it is our duty, yea, it is our privilege to preserve it fresh and vigorous and pure to the last, for it is immortal.

No profession calls for an intellect better developed, more symmetrical, for a more sensible, active intelligence, than that of medicine — none more in need of it, and none that needs it more. "The prime qualifications of a physician," says JOHN BROWN, "may be summed up in these words: *capax, perspicax, sagax, efficax.*"

"First, there must be room to receive, to arrange, and to keep knowledge; second, senses and perceptions, keen, accurate and immediate, to bring in material from all sensible things; third, a central power of knowing what is what, and what it is worth, of choosing and rejecting, of judging; and finally, the will and the way, the power to turn all the other three, capacity, perspicacity and sagacity, to account in the performance of the thing in hand, and thus to render back to the outer world, in a new and useful form, what you have received from it."

Medicine is a science and an art, and we ought not to rest satisfied with proficiency in either of these departments. Nothing short of a thorough knowledge of both will perfect us. Are we not, as a profession, too apt to ignore the intellectual, the scientific, and rest satisfied with the art, with the tin-pedlar part? The art is quite as important as the science. But are we not inclined to forget that man is not simply a machine, to be kept well greased and in gear, that the stomach was not designed for an apothecary's shop, that "man is not simply an

organism, but an intelligence served by organs," that "on earth there is nothing great but man, in man nothing great but mind"?

Medical men should be earnest seekers for truth. Let us be impressed with the fact that no profession requires men of sounder judgment, more prompt decision, patient investigation, clearer perception, more thorough honesty, and purer morals than ours. It may be true that intelligence is not always appreciated — that an ignorant quack, with tact, will often succeed in getting more business than an intelligent, scientific man, but notwithstanding this, we ought to make the most of ourselves, and not rest satisfied with just knowledge enough to skim along.

The profession of law does not necessarily embrace all the sciences as does that of medicine. A lawyer will get along well without physical science. A knowledge of the structure of our body is, practically, of no use to him; all he wants of it is to skin it, he never carries *his* dissections deeper. He must be a sharp man, quick to see a point, ready to take every advantage of his opponent. He must be able to fathom the understanding of a jury, (sometimes a task), must read at a glance their peculiarities, attack the weak point. "How shall I fool this one — humbug that one — mystify this one — hit the prejudices of that one — conceal the facts that tell against my client — magnify those in his favor?" All this is important for a lawyer and a politician, but not indispensable for a physician; he must deal with the mind, sane and insane, and with the body, healthy and unhealthy.

Now, every man who is a man, on arriving at a certain age, chooses some occupation, generally for life; and his success will depend very much upon the motives which govern that decision. If he be guided by his tastes, by his inclinations, by a desire to make himself useful, he *will almost* always succeed, and his success will be

genuine. But if, on the other hand, a love of money, fame, or notoriety, rules that decision, he will be very likely to succeed, but his success may result in a sad failure, paradoxical as it may seem.

CARLYLE says that "nothing is so successful as success," but that is one of his phrases; the converse is quite as true, nothing is so unsuccessful as success. Let us put a hypothetical case, as the lawyers say: Suppose a man, endowed with a fine intellect, liberally educated, possessing agreeable manners, a splendid figure, courted by society, professionally educated, with prospect of success in that line — suppose that he be seized with a miser's spirit, and abase himself before the god of riches; withdraw from society, when its enjoyments cost him anything; should live in an attic, on bread and milk, for the two-fold purpose of stinginess and to lengthen out a useless life; should dodge from town to town to avoid taxation necessary for the support of the government that protects him and his money; should turn a deaf ear to all charitable calls, never so pressing; should succeed in accumulating two or three hundred thousand dollars, and hold on to every cent with a clutch that nothing but the cold, clammy hand of death can relax — "hug it to the very verge of the church-yard mold;" and when the last ray of light has parted from his sunken eyes, and his little soul has crawled from its miserable tenement, should then, and not till then, when it is his no longer to give, will it to some public institution that can take care of itself. Call that success? It is a miserable failure!

> "For ev'n in heaven his looks and thoughts
> Were always downward bent, admiring more
> The riches of heaven's pavement, trodden gold,
> Than aught divine, or holy else enjoyed
> In visions beatific."

Two scholars noticed by the wayside, a stone, and upon its inscription: "Here lies the soul of PETER GARCIAS."

Curiosity led them to dig, and to the discovery of a hundred ducats beneath the rock. Every miser ought to be buried with his money, and this should be his epitaph.

MATTHEW ARNOLD says that "the secret of the age is intelligence." Have we, as a profession, that secret? There has never been a period in the history of medicine so pregnant with important events relating to the science and art, as the present — never a time when so many men of real genius were at work, and at work in the right direction, as now. History may furnish us with the names of greater men, but they had not our means of investigation, and we will accomplish more than they. The drift of effort now-a-days is to the discovery of the causes and nature of disease. We know but little of etiology — we are almost ashamed to confess it. It will never do to make a public confession, but we may as well admit it here among ourselves. If the medical attendant in the sick-room be asked the cause of the disease, he must be a stout-hearted man who will, then and there, confess his ignorance.

It was an hypothesis of LINNÆUS, I think, that all disease has a parasitic origin; and it is a singular fact, so far as we know the cause, that this is generally, if not universally true. But further investigation may reveal other causes. There is such a variety of entozoa and ectozoa, dwelling within and upon us, and such myriads of sporules and infusoria floating in the atmosphere, that the hypothesis may prove true. We know that the itch, the trichinous disease, several varieties of skin diseases, perhaps intermittent fever, and a disease resembling rubeola, not to mention others, have a parasitic origin.

EHRENBERG found infusoria so small that five hundred millions could navigate in one drop of water. And yet these have builded monuments more enduring than the Pharaohs, compared with which, Cheops is microscopic. *They built* a part of England and named it Albion.

Thousands might take possession of one globule of blood, might farm it out, might tunnel it, might bore for oil, dig for iron ore, build cities, canals, railroads, sitting as securely upon their little whirligig, driven on its orbit as we do upon this little globe of ours. And who knows but some big microscope will discover that these have parasites?

> "A flea
> Has smaller fleas that on him prey,
> And these have smaller still to bite 'em.
> And so proceed, *ad infinitum*."

Two causes are necessary to generate any disease, the exciting and predisposing, the germ and the soil—one extrinsic and the other intrinsic, or a certain condition of the body. This latter cause is a mystery, and will doubtless remain so. Why, after having had the small-pox, the system remains unsusceptible to the exciting cause, is a profound mystery, and why our bodies germinate the disease at all, we don't know. Why certain germs find lodgement in some animals and not in others is a mystery, and will always remain so. But we have learned to render the body capable of resisting certain causes, as the germ of small-pox will not fully develop itself in a body protected by vaccination. The system may be placed in a condition to resist the further ravages of venereal disease by syphilization; and we may hope that future discoveries will add other diseases to this list. The predisposing cause remains hidden, and the practical results are only to be looked for in the discovery of the exciting, and sometimes even this is furnished by our bodies,—is internal, is vital. It requires no external cause, perhaps, to generate cancer, diabetes, Bright's disease, anæmia, and perhaps the whole class of similar diseases. We carry the germ and the soil sometimes from our birth, yes, nine months anterior to that, as in the case of hereditary syphilis. A search for the essential cause of such a disease will

prove fruitless: nevertheless we will not despair of finding a prophylactic.

We have spoken of the parasitic cause of disease. There is another source, I think, from which disease may emanate, viz.: the condition of the atmosphere, — either electric, or a certain state of the oxygen, — the vital part. Oxygen has hitherto held the rank of an element, and does now, but ozone, which is an allotropic condition of oxygen, has for a long time been known to exist in the atmosphere in small quantities, and its increase or decrease is supposed to be a fruitful cause of disease.

Prof. SCHONBIEN, of Basle, who has been for the last thirty years almost exclusively and uninterruptedly engaged in the researches relating to oxygen, has recently come to the following conclusions. First, — oxygen may exist in the atmosphere in three allotropic conditions. Second, — two of these states are active and opposed to each other, designated by the names ozone and antozone. Third, — equal quantities of ozone and antozone neutralize each other, forming inactive or neutral oxygen. Fourth, — neutral oxygen may be separated, or transformed, one half into ozone, and one half into antozone. But he has never been able to isolate these two bodies; there is more or less neutral oxygen mixed with them. Now I believe certain conditions of the oxygen and of electricity to be the cause of a large class of diseases, — not from a vitiated state of the air by foreign substance, but the cause is within, owing to some change not yet well understood. I believe this to be the cause of cholera, and that we may as well quarantine the wind as it. When the cholera wave reaches our shores we shall have the epidemic, and not till then. It was brought to New York last fall, but it did not spread. After it is once generated in the body *it may be* carried in crowded ships, or under any other

circumstances favorable to the dissemination of any disease, and a few isolated cases may occur, but the disease will soon die out unless the wave has reached the locality. This I believe to be the rule, not without exceptions, of course. I am aware that many facts squint toward the contagiousness of the disease, and endless discussions may be held on this point. Every man must satisfy himself. I don't believe in the contagiousness of cholera. I will mention one other disease, — wide-spread, — which evidently has its origin in the condition of the atmosphere, — influenza. It sometimes prevails to a great extent. We had an epidemic about twenty-five years ago which extended over the whole country, and I believe a part of Europe. We have had nothing like it since. It was called the "Tyler gripe," — in honor of John, who then occupied the White House, — a very unhealthy place, several gripes having originated from that locality since. We had one four or five years ago which frightened the occupant so that she skedaddled. There are symptoms of one now, but it won't spread. The modern children of Israel are not so anxious to be led back into Egypt as were the ancient. They have started, have passed the Red sea, and will surely press on to the promised land. And I hope that Moses will keep his temper so that he can go too. There is another condition of the atmosphere which furnishes the germ of disease, — a vitiated state, owing to the introduction of foreign substance, emanations from the soil, or the decay of animal and vegetable matter. Endemic diseases are doubtless attributable to this cause. We shall be more successful in our researches in this field. Chemistry and the microscope will aid us here. We have reason to believe that we shall understand this matter thoroughly sometime; and although we may not catch the seed, we will endeavor to render the soil unfitted for its germination.

Chemists and microscopists have pushed their investigations far into the hitherto unexplored regions of pathological anatomy within the past few years; and no man has so nearly touched bottom in his results, as VIRCHOW. His cellular pathology is the most satisfactory book of the age, and I hope that every member of this Society who has not availed himself of the labors of this remarkable man, will do so at once. He rides no hobby (unless it be a cell), he combats some of our hitherto orthodox doctrines, confesses on some points his ignorance, and is, I think, an honest seeker after truth. It is not a book to be read simply, but to be studied.

The science and art of surgery have advanced rapidly within the past few years. There was a time when surgery played second fiddle to medicine. Not so now. Surgical operations are not so often the opprobrium of our profession as formerly. Limbs are no longer sacrificed for compound fracture, or diseased bones, as a matter of course. But conservative has taken the place of destructive surgery. The ophthalmoscope has revealed to us, marvelously, the hitherto obscure diseases of the eye, and ophthalmic surgery is brought to a great degree of perfection. Diseases hitherto considered incurable have been remedied. GRAEFE'S knife has cured glaucoma.

The larynx, also, is brought to view by the laryngoscope, — tumors and polypi removed, and local applications applied. Ingenious operations upon all parts of the body are being performed with a view to restore.

There has been great improvement in the treatment of fractures, — limbs are not bandaged and swathed as formerly; different methods of extension and counter-extension, more simple and comfortable to the patient, and a variety of permanent apparatuses after the removal of splints, are in use. And here I will speak of a method which in my estimation surpasses all others. The substance used is common glue, prepared as for mechanical

purposes, only it may be a little thicker and should not be so hot.– The limb should be well greased, then a woolen stocking leg, with the smoothest surface turned inward, should be drawn on, and should fit snugly. Then with a small brush paint the stocking over with glue until saturated, and a thick coat remains upon the outside, — leaving a space one-fourth of an inch wide, the whole length, unglued. Then apply a roller, two or three thicknesses over the glued stocking leg, and let the limb remain upon the splint till the glue hardens. Should the limb swell, cut open the splint along the space unglued. It may then be sprung open and removed from time to time, for the purpose of examining the limb, and when reapplied two or three pieces of tape should be tied around to keep it in place. This forms a cylinder as firm as cast iron, and will hold its elasticity and firmness for weeks. I think if surgeons will try this material, with the woolen stocking leg, that they never will resort to other means. If for the leg, the space unglued should be over the shin, to avoid pressure upon that part. Nothing is so good, in my estimation, for a club-foot apparatus, as glue. Physicians often meet with congenital cases in their practice, and for want of proper means are often obliged to send them away for treatment or neglect them. There are two classes: first, the foot can be taken in the hand and brought into position at once, but will immediately be drawn back. Here the muscles only are at fault, and the tendon should be divided before commencing treatment. In the other variety the fault seems to be in a malformation or malposition of the tarsal bones, — the foot cannot without great force be brought into position. Here a division of the tendons is unnecessary, the foot must be turned gradually, and it will be a long time under treatment. Every one must have experienced great difficulty in keeping a foot in position by any mechanical apparatus, — it will twist and turn and chafe, and perplex one. For the

past few years I have used a glued stocking, applied in the same manner as in the case of a fracture,—a stocking, instead of a stocking-leg. The unglued space should pass over the dorsum of the foot and up the shin. The foot should be held in position by the hand of the mother or nurse, after the glue is applied, till it hardens. The apparatus can be cut open as in the other case. The splint should be renewed once in two weeks, and the foot brought nearer in position. When the child begins to stand or walk, a steel apparatus should be fitted to a common shoe, to be worn during the day, and the glue-splint at night. I have treated several cases in this way,—have three under treatment now, and I can assure you that it is satisfactory.

The division of tendons may be dispensed with in many cases, but some men have a weakness for surgical operations, and the first question they ask themselves on being called to a case is this: "Is there a chance for an operation here?" I fear this may be true to some extent, of the young men entering the profession at this time, men who have seen some military surgery, and have not yet learned what old Dame Nature can do. If they could see some fractures which the old lady has patched up after them, that I have seen, they would have greater respect for her ability. A distinguished surgeon in New York city, twenty-five years ago, said, when DUPUYTREN'S operation for relaxation of the *sphincter ani* was in vogue, every young man who came from Paris found every other man's anus too large and proceeded to pucker it up. The result was, that New York anuses looked like gimlet holes in a piece of pork.

It seems to me that just such a raid is being made upon the uterus at this time. It is a harmless, inoffensive little organ, stowed away in a quiet place. Simply a muscular organ, having no function to perform save at certain *periods of life*, but furnishes a capital field for surgical

operations, and is now-a-days subject to all sorts of barbarity from surgeons anxious for notoriety. Had Dame Nature foreseen this, she would have made it iron-clad. What with burning and cauterizing, cutting and slashing, and gouging, and spitting, and skewering, and pessaring, the old-fashioned womb will cease to exist except in history. The transactions of the National Medical Association for 1864, has figured one hundred and twenty-three different kinds of pessaries, embracing every variety, from a simple plug to a patent threshing machine, which can only be worn with the largest hoops. They look like the drawings of a turbine water-wheel, or a leaf from a work on entomology. Pessaries, I suppose, are sometimes useful, but here are more than there is any necessary for. I do think that this filling the vagina with such traps, making a Chinese toy-shop of it, is outrageous. HIPPOCRATES said that he would never recommend a pessary to procure abortion,—he *swore* he never would. Were he alive now he would never recommend one at all. If there were fewer abortions there would be fewer pessaries, and if there were fewer pessaries there would be fewer abortions. Our grandmothers never knew that they had wombs only as they were reminded of it by the struggles of a healthy fetus, which they always held on to. Now-a-days, even our young women must have their wombs shored up, and if a baby accidentally gets in by the machinery, and finds lodgment in the uterus, he will have a knitting needle stuck in his eyes before he has any. It is the easiest thing in the world to introduce a speculum and pretend to discover ulceration of the os, and subject your patient to this revolting manipulation once or twice a week, when there is nothing the matter. We have itinerant doctors up to this game, and it is time that it was understood. Such men, of course, attribute all diseases to this organ,—and this is too apt to be the case with scientific men who make such diseases a specialty. A monograph has been published in

this country within two years which almost takes this ground. No one is more willing than myself to hail a discovery or an operation that brings relief to suffering humanity, and, as before remarked, we are under infinite obligations to surgery for what she has accomplished within the past few years, but this meddlesome practice is one of the evils of specialties.

This subject has been discussed within the past few years in several medical associations, national and state, and bids fair to be endless. But I will soon finish what I have to say about it.

In large cities a man will almost always slide into surgery or medicine, sometimes by mere accident, but this can scarcely be called a specialty. Still further: one may have a taste for diseases of the eye, ear, genital organs, or some other part of the body, — may push his investigations in that direction because he likes it, — at the same time keeping well posted in the general literature of his profession; his practice may be special, his knowledge general. That man is a specialist, and is one of the most valuable members of the profession. But he must be generally intelligent. The body is not a unit; it is composed of many different organs, each having a special function, but none of them independent. I say in that sense a specialist will be one of our guides, one of our authorities, if he be a sensible and an honest man. But if, on the other hand, before entering his profession, or if, after an unsuccessful attempt at general practice, if in search of wealth, fame or notoriety, he surveys the field for some organ as his hobby; — if he mount an ophthalmoscope, an auroscope, a stethoscope, or a speculum, with his pockets full of pessaries, — look out for him! He don't belong to our system, — he is a comet, with a gaseous head, body and tail, that "bodes nothing but mischief."

Specialists claim to be the generals of our professional

Not so. They are simply the captains; they command companies. The generals are the SYDENHAMS, the HUNTERS, the DUPUYTRENS. Our Lieut. General died more than two thousand years ago.

Specialty in any profession does not develop a man roundly. If one be simply a linguist, a chemist, a mathematician, he will, of course, be authority on that subject; but he has not that breadth, that sweep of intellect, which he might have had.

While surgery has so nobly, so rapidly advanced, has medicine kept pace? I fear not. Surgery holds out inducements for intelligent progress that medicine can not. The results of our labors are more apparent, especially to the uneducated. Quacks cannot so successfully enter the field. They are afraid of broken bones, of bleeding arteries, — the people are not so easily humbugged. A distorted limb, — an anchylosed joint, — a disfigured face, is a living witness against them, and surgeons are only troubled with charlatans as cancer-curers, — and here we are not proud of our own success. But medicine has made great progress. We have leaders in the field quite up with the times, but the main body does not so rapidly advance. I fear this may be said with more truth of those of us who have been in the field a quarter of a century or more. But first to the younger men. During my professional life I have had a large experience in teaching young men. And I can conscientiously say that I have always endeavored to discharge my obligations faithfully and fully, by impressing upon them the importance of a persevering industry, — of aiming high and hitting the mark. I think my office and dissecting room has been an uncomfortable place for a lazy man. I have no patience with a man who won't work his brains. Everything, even the compounding of medicine, requires brains. "Pray, Mr. OPIE, may I ask what you mix your colors with?" said a brisk *dilettante* to the great painter. "With brains,

sir!" was the gruff reply,—and the right one. Some young men, during their pupilage, give promise of a brilliant career, but sadly disappoint us. A medical degree is their goal; they work hard for it, and earn it, and get it; then sit down, draw a long breath,—and that is the end of them. Some men in college are indefatigable; ambitious to lead their class, and do lead it; graduate with honors; leave with steam up, track clear,—but never add one particle of fuel, simply run as long as their college momentum will carry them, with a retarding, slackened pace, and finally stop.

A mistake of this kind is a mistake forever. *We* can't live our lives over again; if we could, we might do the same thing. Sir THOMAS BROWNE says "Men are lived over again." The more need of leaving lives that are worth living over. A man ought not to go through life in this way. He don't go through life,—life goes through him. You have advantages that we had not when we were students, especially in anatomy and physiology. Some of us learned anatomy from old CHESELDEN, I presume, simply from the book. Now it is learned over the *cadaver*. Physiology is now taught by vivisections. Works on theory and practice are not so hypothetical,—not such long-spun yarns. Diseases are not so loaded down with names, and divided into firstly, secondly, thirdly and fourthly, as ministers used to blaze their sermons, that the congregations might find the way back. Such books as TODD'S, TANNER'S, BENNET'S, CHAMBER'S and FLINT'S, were not to be had when I was a student. But they are to be had now; read them, study them. They are written by thinking men, and our guides must be men who think and write, and not those who read and write. We have too many of the latter; they write a great many books, and large ones, too. There is more in the three little volumes of TODD than in thirty of these compilers. *Never touch* a man who has a diarrhea of words and a

constipation of ideas. Use all the faculties God has given you, tax them to the utmost,—pass us old fogies if you can. We intend to keep up with you,—yes, we mean to keep a little ahead.

Now for a little confidential talk among ourselves. Are we quite up with the times—we who have been in the harness a quarter of a century or more? Are we pressing onward, or have we cast off all the harness but the breeching? Do we carry the lancet and calomel, to bleed and salivate as we used to? Do we blister and starve, and make our patients as uncomfortable as we once did? I think not. If any of us do, by what authority? Our own experience? HAMILTON says: "A pretended experience is the screen behind which every illusive doctrine regularly retires." Fifty years ago, a young man was studying in the office of an experienced physician. An epidemic typhoid fever prevailed. The patients were all treated with salivation and starvation. Those who had all the poison they could carry, minus the calomel, broke down and died without the benefit of salivation. But those who could carry the disease, backed by salivation, came like shadows from the conflict. Their final recovery was in the dim future. The doctor was called away, to be absent three or four weeks, and left his business with his intelligent pupil, who thought to try a new method. He withheld calomel and nourished his patients. The result was satisfactory. When his master returned, he made a full confession and exhibited his trophies. The doctor shook his head,—he had been in practice forty years, and was not going to try any experiments. Now what was that man's experience worth to him? Just as much as forty years in a tread-mill is to a horse. The accumulated experience of the men of the past and present combined with our own, is what we want. To rely simply on our own, unless we are prodigies—unless we an intuitive knowledge of everything, especially if

in conflict with the rest of the world, is nonsense. Something can be learned from every man in the profession — yes, and from every man out of it, even from a quack. *He* may be of some service to us. "Ill blows the wind that profits nobody."

We, too, must learn from the authors above-mentioned, and from Dame Nature. She only needs a little guiding, no meddling interference. Better a PALINURUS than a PHÆTON. Watch her signs, her signals of distress; study diligently the chart; if she lose her reckoning, be to her a faithful pilot. She has taught us plainly that many diseases recover without active treatment—that syphilis will without mercury,—that she can take care of delirium tremens, and many other diseases. She has dimly shadowed forth that the whole class of alteratives are of doubtful utility. She has taught us that self-limited diseases require regimen, mainly; and if she wants help she will hoist her signal. She has taught us that she needs good nourishment, air,—fresh air; finally, that she needs brains.

I have thus briefly sketched some of the most noticeable points in the present state of our profession, imperfectly, I know,—but I wont apologize at both ends of my address.

Thanking you for your attention, and for the honor conferred by electing me to this office, I shall retire with pleasant recollections, and while I remain a member, shall endeavor to discharge my obligations faithfully, and keep up with the times if possible.

And finally, let us all remember these aphorisms of the Father of Medicine; "Life is short,—Art long,—the occasion fleeting,—experience fallacious and judgment difficult."

ADDRESS

BY

REV. ASA D. SMITH, D.D., L.L.D.,

PRESIDENT OF DARTMOUTH COLLEGE.

MR. PRESIDENT, AND GENTLEMEN OF THE NEW-HAMPSHIRE MEDICAL SOCIETY:

It is with singular pleasure I welcome you to our village, and especially to these academic halls. To greet here so large a number of gentlemen, intelligent, cultivated, and influential, representing every part of our state—from Maine to the Connecticut, and from the region shadowed by the White Mountains to the old Bay State and the Atlantic shore—we could not but regard, whatever their vocation, or their particular relation to us, as a privilege and an honor. This is not only the one college of the state, its roots are fast twined about all our most precious and stable foundations. Of those roots have come the shapely, uprising trunk, and the outspreading branches, in which the birds of heaven have made sweet music, and beneath which care and toil have found grateful repose. The history of this institution has, from the first, been closely linked with the whole history of New Hampshire. It has been, in all its relations, we make bold to say, a public benefit. Not an art, or a trade, or a science, or a vocation of any sort, however lowly, but has felt in some degree its benignant touch. It lives primarily for the state, though with large scope in respect both to the land and the world. It is our fond

thought that the state should care for it; that not only the public authorities, but our individual men of mark and of power, should give it something of their time, and their kind, attentive consideration; that they should look in upon it, as opportunity serves, and note well its capacities and its claims, its plans of advancement, and its needs, if it have any.

It is with sentiments like these, gentlemen, that, though you are here mainly for purposes of your own, we hail your coming. It is passing more and more, I think, into the common judgment of our people, that New-Hampshire has a real, organic identity; that she is a veritable commonwealth, and not merely an outlying province even of so good a state as old Massachusetts; that with all sisterly affinities, she has a life of her own to conserve; that with all due regard for other institutions, she has institutions of her own to care for; that whatever we do for colleges and medical schools, and other educational establishments, on the Rocky Mountains or the Feejee Islands, we are under primary and imperative obligation to care for the college, the medical school, the educational appliances of every description within our own borders. Views of this sort, received and appreciated as they are by you all, will give a zest and a tone to the present occasion.

There is another view, however, which lends it a still more specific interest. You come, gentlemen, not simply as honored citizens of New-Hampshire; a large portion of you have returned as loving and dutiful sons to your *Alma Mater*. Here not a few of you received your classical training; a still larger number, your professional. Amid these leafy elms you planted your early hopes; you reared here those castles in the air, which have not proved, we are fain to believe, wholly fanciful, but which a kind Providence has wrought, in greater or less agreement with the patterns, into substantial reality. What *old scenes*, as many of you have trod these walks to-day,

and looked upon these well-known halls, have passed again before you! What sleeping memories have risen at your coming from beside yon flowing river, and from every valley and hillside about us! You behold again the faces of some to whose words of instruction you once listened, while others, alas! you miss from among us. And, while they venture to believe that however imperfect may have been their labors, you meet them with thoughts of kindness, and even with something of gratitude; quite sure I am that they respond to your greeting with a feeling of joy and thankfulness, nay, of honest pride. Nor will the occasion lack a peculiar interest, even to those who were elsewhere trained, These teachers, by natural laws of association, will represent to them their own teachers; these halls, others more familiar. The dead Past shall revive to them also, and utter its lessons for the present and the future.

Yet with all these touching personal and local considerations, we are chiefly impressed by the worth and dignity of the profession you represent. I say this with no disparaging reference to other vocations. The three learned professions, so called — though I think the somewhat pretentious term should by no means be restricted to them — while each has its distinct and important sphere and object, are yet in beautiful and helpful harmony. By God's appointment, they are sister charities. They are not dead forms, be it observed, or merely artificial mechanisms; a vital conception underlies each one of them. The ministry is concerned with the great idea of God, in its various relations to man's spiritual welfare. To the legal profession is committed, not a mere round of dry and barren technicalities, conducive only to vain jangling and to the sordid end of money-getting; but, in the true view, the conservation of justice between man and man.

he medical fraternity belongs the care, in an impor-
ıse, of our physical nature. It is theirs to aim at

its perfection, not alone in remedial ways — that were a low view of their office — but in all prophylactic methods, and by all processes of wise culture and permanent invigoration. They are the priests in the temple of Health, whose lips should especially keep knowledge. It is theirs to unfold, by all diligent investigation, and all effective utterance, the whole science of man's physical well being. Of all reforms that relate to it, they should be, as they commonly have been, the most effective promoters. How elevated and how broad, as thus apprehended, is their sphere! We think of them no more as mere dealers in pills, and powders, and lotions, and cataplasms — as dancing for joy, with Dickens' merry practitioners of Bristol, at the prospect of a surgical case. Our poor jokes become stale, flat and unprofitable, and we readily assign to the man of medical lore, the high position that belongs to him. Nor are we moved by the suggestion that it is, after all, but the poor body that he deals with. For in all creation, short of mind, that same body is, in itself considered, God's master-piece. It rises in importance, considered as the vehicle and the organ of the immortal spirit, as not only used and variously affected by it, but as re-acting both upon mental states and moral habitudes, the *mens sana* being attainable only with the *corpore sano*.

Just at this point we see the adjuvant relation of the medical profession to the others we have named. Even the law may well confess its indebtedness. Not to speak of disgraceful assaults and batteries — such as a high-minded advocate is loth to touch, many a wearisome and useless process of more decent litigation, welcome only to that "horse-leach," the barrator, as old FULLER phrases it, whose vocation it is "to suck the corrupted blood of the law," has had its origin, doubtless, in a disordered physical state. A little valerian for the nerves, or a blue pill to *quicken the* liver, or a little iron to better the vital fluid,

or a course of exercise, wisely ordered, or a strict temperance regimen, would have saved the man of the law from some of his most disagreeable and unprofitable labors. If I were an advocate, I think I should keep myself on intimate terms with the doctor, that I might remit, now and then, an over quarrelsome client to his lancet and his pharmacopœia. Sure I am that when, for many years, a pastor's cares were upon me, I met not unfrequently with cases of spiritual trouble, the root of which was evidently in a morbid condition of the animal economy. It was the physician they needed rather than the Christian teacher. It was the medical man who could best

> "Minister to a mind diseased,
> Pluck from the memory a rooted sorrow;
> Raze out the written troubles of the brain;
> And with some sweet, oblivious antidote,
> Cleanse the stuffed bosom of that perilous stuff,
> Which weighs upon the heart."

Nor can it be doubted that even the moods and methods of the pulpit would often be improved by a wise hygienic treatment.

The pages of many a book have given as clear an indication of errant bile as the sallow hue of the author's skin. One of the most ingenious of our American writers has suggested that the skepticism of HUME, and HOBBS, and VOLTAIRE, and ROUSSEAU, and JEREMY BENTHAM, and THOMAS PAINE, may be in part accounted for by the fact that they were old bachelors. The radiance of a wifely countenance, he fancies, would have done much to dispel the Serbonian mists. "I have always thought it a thousand pities," he says, "that Madamoiselle CURCHOD did not wind her chains more effectually round GIBBON's heart. I imagine that Cupid, the little god of love, might have expelled a great deal of Paganism from the pages of his splendid history." Is it not quite as plausible a theory, that the infidelity of many others may be ascribed in a measure — not to overlook or under-

rate the deep seated virus of sin — to peccant humors, which a proper medical and hygienic treatment might have purged away. Be it that the physician deals immediately with the body; in the widest scope of his art, he reaches at once the loftiest hights of intellect, and the deepest founts of feeling.

The world is every way indebted to medical science, and with the passing years the debt is rapidly accumulating. In no other direction has there been more palpable progress. Witness the diminished rates of mortality all over christendom. Witness the fuller accordance with the laws of health as touching air, and aliment, and clothing, and shelter, and occupation. You have seen, gentlemen, on our college grounds, the preparation for an edifice whose cap-stone, I am happy to say, is to be laid the present season — an edifice devoted to the physical welfare of our students, and hardly less to the mental and moral — for the conception of which we are largely indebted to the science you cultivate. It betokens the progress of the age, as well as the progress of this institution. And we look for still greater things in the future; for influences of your profession still more pervasive, modifying and ameliorating; influences culminating in that millenial period, when the hope proffered by the angel to ADAM in the great epic, will become, we are fain to believe, the general heritage of the good:

> "So may'st thou live till like ripe fruit thou drop
> Into thy mother's lap, or be with ease
> Gathered, not harshly plucked, for death mature."

If the views I have taken are correct, no profession is more truly philanthropic. And so I think, with all due abatement on the score of the ignorance, stolidity, and prejudice you have to deal with, the world generally feel. Next, to say the least, to the man of GOD, in the warm affections of any community, is the intelligent, earnest, *sympathizing*, self-sacrificing physician. As he passes from

house to house, of what mingled solicitudes and confidences is he the centre! How do hearts melt at his coming! What secrets are open to him! What an influence does he wield! What affections cluster about him while he lives, and what tears of grateful memory bedew his grave! There is a reward of his labor ample enough to call forth all his powers, and to sustain him under all his hardships. Hardships do, indeed, fall to his lot; and in much of the field which you, gentlemen, occupy, they are perhaps in some respects peculiar. Those are rough ways which you often travel. It is through an air touched with the bitterest chill of our northern clime that the stars shine upon you often in your weary night-visits. I was affected lately by the mention of a doctor in one of our roughest towns, who is wont in the winter to carry a shovel in his sleigh to clear his way through the snow-drifts—to clear his way, perhaps, to some humble abode of poverty where no charge is made, or a charge merely nominal. There are other heroisms, believe me, than those of the battle-field; and not the least of them, various in form, are to be found within the pale of your profession. You shrink not, I am persuaded, from these self-abnegations. With the light of many a great example beaming brightly upon your pathway, you rather rejoice in them. You would take part, at whatever cost, in that diversified instrumentality by which, under the mediatorial economy, our sin-smitten humanity is to be raised from its low estate. You recognize, I cannot doubt, the affinities of your art to the loftier work of the Great Physician; and unto Him you would consecrate all your capacities and endeavors. You will find in the exercises of the present occasion much that will aid and animate you in your noble work; and you will depart, I trust, with no regret that you have allowed us, from the fulness of our hearts, to welcome you here.

ON THE ABUSE OF THE TOPICAL TREATMENT OF DISEASES OF THE UTERAS.

ALBERT SMITH, M. D., PETERBOROUGH.

In nothing has the advance of medical science and art been more manifested than in diseases and derangements of the uterus. The medical treatment of all this class of diseases formerly was entirely empirical, and it should not seem strange to us that the practitioners of that day,—being in utter ignorance of the malady,—not possessing the modern means of examination and exploration,—nor, indeed, understanding the pathology of uterine diseases and displacements, should adopt plans and modes of treatment often rude, sometimes even barbarous, and failing in these, as they were certain to do, should give up all this class of complaints to nature as incurable. This was often a fortunate escape for the patient; for all treatment in the dark to organs as important to the animal economy as those of the uterus, must not only have been reckless, but exceedingly dangerous.

And in our times it is often no less dangerous for those suffering from this class of complaints to fall under the care of many practitioners, who, with the recently discovered instruments in their hands, but with the improved pathology of uterine diseases not at all in their heads, do not fail to do infinite mischief with their false diagnoses, their rude and unnecessary manipulations and bold and potent topical applications. So that of all things, methinks poor woman, suffering under any form of uterine *disease,* should pray to be saved from any treatment by

ignorant, presumptuous and officious practitioners. And these men, who, knowing that they possess no competent knowledge to enable them to treat these diseases scientifically, nevertheless offer their services for this purpose and, of course, grope their way altogether in the dark in the use of the various instruments of uterine surgery and with the various potent topical applications and do great injury by their injudicious operations, deserve the severest censure and rebuke of the profession. We are not required to be patient or forbearing with ignorance and presumption in whatever quarter it may appear. I have no patience with those practitioners who are now making a hobby of this practice; who are resolving all female disorders into these diseases, and who believe that these are the commonest of human maladies. It is true that they seem to spring up wonderfully in the path of the man who makes great pretensions to their treatment, while to others, general practitioners with very extensive business, they are of rare occurrence, only seen now and then. I need not say how such men treat these complaints — it is sufficiently obvious. It is always a calculation how much such cases may be worth; how much money can be made out of them. So that of course, if they are paying, the case is prolonged with a continued and assiduous treatment till the patience of the sufferer is exhausted, or the disease, as may often happen, developes itself in some other part of the system and all applications become useless or absurd.

It is but recently that it was supposed safe to extend the medicinal and topical treatment to the inner surface of the uterus. The elementary books are yet somewhat reticent on this topic, and we have to refer to monographs or special works on uterine diseases for the necessary information. It is well settled that this mode of application is both safe and useful, so that now we have a new treatment for this class of complaints, with a heroic practice that has proved of great value when directed by skill and knowledge. And new

instruments also have come into use. The pessary, though as old as the times of HIPPOCRATES, has become almost a new discovery, modern practitioners having so modified, improved and increased the number of different kinds that we now have one hundred and twenty-three of every form and shape! This great multiplicity brings confusion, for out of so many good ones that have been successfully used it is difficult to make a choice. The speculum is a recent discovery, and as a means of exploration and examination has proved of inestimable value. It has become the most common of all uterine instruments, and is used with a boldness and recklessness that is perfectly astonishing. The sound and other instruments used are of recent origin; also, the application of cauterizing agents to the os uteri, and to the inner surface of the organ are the heroic acts of our times. It is the great thing to know how to use these formidable instruments, and how and when to make topical applications in any given case. The treatment is safe and rational if it is only wielded by skillful hands. I know of nothing that requires greater care and circumspection in medical practice.

Would not our medical fathers have been astonished at the boldness of this treatment, and would they not have deemed such medication dangerous to life? They would have seen at once that, if used at all, it should always be directed by experience and skill. We may imagine with what wonder they would have regarded a speculum,—what surprise a stem-pessary would have occasioned,—for they never thought any instrument could enter, much less be retained permanently in the interior of an organ that was supposed to be as unapproachable to all medicinal applications as it is to all eyes.

Is there danger from the use of these topical applications, and the new instruments devised for the modern treatment of uterine complaints, and is the community *better for* the discovery? Of course this must be an-

swered affirmatively. It is their abuse that makes them formidable and dangerous; so that with all the evils that may follow their use we should be unwilling to discard them. But who is to use them? Can any neophyte or beginner essay the introduction of the speculum to see, he don't know what, or sport the sound to restore imaginary displacements, or apply one of the numerous forms of pessary, all perhaps for an ideal purpose, when he has had no special training or experience in this critical treatment? Well may we be alarmed when these cases are in the hands of untried, rash and self-confident men.

I propose now to speak of the abuse of topical treatment in this class of diseases. The use of skill, knowledge and tact in this matter must be obvious to any one; and perhaps in no instance does our profession come with a greater blessing to woman than in the relief of these always obscure and difficult cases. It is here that honor shines out from our art, when by its skill it has diagnosticated the most difficult case of uterine disorder from a few and often complicated symptoms with which it is associated, and at once instituted a treatment that tells on the disease and relieves a suffering, often intolerable, which has not as yet been affected by any known remedies. All honor to those physicians who are safe counsellors and advisers in these maladies. But we cannot withhold our indignation and contempt from those men who boldly engage in this practice without knowledge or experience; who do not know how to reason or compare; who are rash and unreliable in their judgments; and who always readily find ante and retro-version, or flexion, or prolapsus when they do not know what else to call it, and with their flimsy and irrational diagnosis follow up the case with heroic treatment. What can be more reckless or abhorrent than an ignorant trifling and meddling with the most difficult and delicate matters in the whole range of medical treatment, doing violence to common prudence and decency,

and insulting the chaste and refined feelings of the female sex?

It is a well-received axiom in the profession that the physician while in attendance must be doing something. Let him take care, if he is in any doubt, that he is as innocent in his administrations as if he was dealing with the little pellets and globules of Homœopathy. If a man does not know what to do, he had better do nothing. This tampering and experimenting with medicine when one has no definite view of what he intends to accomplish is not merely inexcusable, it is vicious, unprincipled empiricism. In the investigation and treatment of disease it is often necessary to grope one's way in the dark; yet this must be done with the strictest care. Yet after a careful tentative treatment the symptoms will often put us on the true track, so that the whole case comes out plain, and the treatment at once restores to health and activity. In no class of diseases is this more clear than in uterine disorders, for in none is a true diagnosis more difficult. Witness the difficulty of diagnosticating diseases of the ovary. How many diseases denominated ovarian dropsy have been found, in operating for their removal, to be fibrous or some other kind of tumors of the uterus, and this, too, by the most discerning and experienced men! Now if this be true of the most careful and eminent surgeons, how will it be with the thousand and one practitioners who enter boldly into this practice, and who do not, while in great doubt in their diagnosis, hesitate to use the speculum or sound, apply the pessary or cauterize for they hardly know what?

But the great evil of our day is the making a hobby of these cases and suspecting every female who is in delicate health of having some abnormal condition of the uterus, and, upon this hypothesis, confidently naming the disease and submitting the most improbable persons to an examination *per vaginam* and *per speculum*, and upon this absurd *notion instituting* a topical treatment to carry out an ideal

disease till it can be pronounced cured or the imposition can be practiced no longer.

Now is it not to be feared that many physicians who occupy a tolerable position in the profession do this very thing? And why?

It is an easy solution of many female diseases that are with difficulty diagnosticated; it is not on the surface, and is only known by an examination which no one else may make, especially when he is in attendance, so no one can say that he is deceived or is practicing imposition. It keeps the patient under treatment for a long time, for sure quiet and rest in the horizontal position are earnestly enjoined. Then it requires many visits and much manipulation, which adds greatly to the emolument of the physician.

Now a man who can get up five or six cases of this kind, perhaps in as many towns can have these for his pastime to fill up the gaps in his home business, and in the year can pecuniarily make a nice thing of it. Now I ask if any *honorable* man can make all this practice merely *venal*—can trifle with these female complaints he cannot diagnosticate, and endeavor to make money out of them without the slightest idea that he is rendering any equivalent for the same? And does any one suppose that these cases are frequent enough in our country towns to afford much practice for any one?

I speak thus plainly because I have known many cases of the use of the speculum where there was not the slightest indication of uterine disease. In one case an exploration was made, when the disease not long afterwards disclosed itself, by an autopsy, to be an organic affection of the liver. In another, a speculum examination followed parturition, and of course a congested state of the os uteri was presented, which was so heroically scarified that a hemorrhage ensued that was nearly fatal. It is the rashness and inconsiderateness which is so reprehensible. Sure-

ly such a violation of every medical principle, and of common sense, too, should never occur. It is humiliating to know that it is sometimes seen. In all these cases it is only care, deliberation and judgment that is needed. It is far better that the physician should fail in not doing enough than in doing too much; better that he should acknowledge himself baffled and confounded by the disease than to institute an irrational, unnecessary or harsh treatment that may compromise the safety or future comfort of his patient and bring lasting dishonor on his own name.

I have suggested these ideas not because I do not fully appreciate the great benefit which is obtained in the treatment of many uterine diseases, but because the practice is liable to great abuse, and therefore is to be resorted to with great care and caution, always remembering that great harm may result from its injudicious use, and that the very confidence reposed in the physician by submitting to examinations so disagreeable and repulsive, should entitle the patient to all the reticence and caution which is consistent with the proper cure of the disease.

ORATION.

CHARLES F. P. HILDRETH, M. D., CONCORD.

MR. PRESIDENT AND FELLOWS OF THE
NEW HAMPSHIRE MEDICAL SOCIETY:

The duty having been assigned me of occupying a portion of the time upon this anniversary of your honorable body with a few remarks pertinent to the occasion, I have undertaken it, although not without some misgivings as to my ability to interest you.

In searching among the many topics that present themselves for a subject upon which I might address you, I was conscious of my unfitness to instruct those who would be assembled here in anything pertaining to the pursuit of that calling by which they have won the respect and esteem of their fellow-citizens. And though I can give no theory, suggest no remedy, or name no treatment for disease that would be new to you (nor will I attempt it), yet, having given a few thoughts to the various ways by which the world is duped and the healing art disgraced by a false practice, and some of the causes leading to it, perhaps the time may not be lost if you permit me to offer a short dissertation upon the

"TRUE PRACTICE OF MEDICINE."

This is a subject that demands attention; one that would give the *ablest* of your profession full scope for all their talents, as well as furnish work for the humblest; and every word or thought advanced is needed not only by us, but

the world at large, and no matter what amount of labor was bestowed upon it, the reward would be ample could mankind be induced to take more rational ideas regarding the treatment of disease.

"The world is a humbug and life of but little value," was the exclamation of a confirmed hypochondriac a short time ago. Since hearing that, the thought has struck me, had my friend said the practice of medicine was a humbug, as shown in the thousand forms the world is duped by those who, under the guise of curing disease, play upon the credulity of the sick and suffering, I fear there would have been not a few grains of truth in the charge.

Indeed, how mortifying it is to witness the ease with which the majority of the human family can be deluded. Experience does no good, for we are again and again ready for the trial until worn-out humanity can endure no more. Where does the fault lie? Can it be from ignorance, from a tendency of men to error, or do we wilfully throw aside our reasoning powers and with closed eyes rush into any snare that may be set for us. This weakness or fault, whichever it is, has in all ages been taken advantage of; ours is no exception, for the world, and this country in particular, is full of quackery and imposture of every kind, and they are multiplying day by day. Scarcely a newspaper can be taken up but what, in great capitals, we find a new plan of treatment or some new panacea for all the ills of flesh. The American people are certainly the unhealthiest upon the face of the globe if the immense number of medicines we manufacture and consume is any criterion.

"The true practice of medicine!" well might the race exclaim from the depths of quackery they are now almost lost in,—"the true practice of medicine—Oh, teach us what it is!" Which one out of the countless methods held out to us is the right one? Tell us ere we sink forever. Here *we have allopathy* with its large doses; homœopathy with

its small doses; hydropathy saying "nothing like cold water;" the botanic claiming the boundless forest as his *materia medica*; motorpathy, the nutritive process, sleeping mediums, female physicians, Indian doctors, laying on of hands, inhalations, traveling physicians, specialists, *et id omne genus*, besides the innumerable patent medicines of which every newspaper informs us, and with which every store, from that of the small country trader up to the splendid establishment of the fashionable city druggist, is filled.

It is truly said we are a reading people, occupying every spare moment with paper, pamphlet or book, — reading anything, — quantity, regardless of quality, being all we ask; and well this hankering is supplied by the cunning nostrum-venders. Almanacs and pamphlets by the million are scattered broadcast over the land all full of wonderful cures by this medicine or that plan of treatment. The beautiful works of creation are even desecrated by their vile uses. They fill the daily and weekly papers, even those called respectable, aye, *religious*, with advertisements craftily worded to catch the eye of those who either have wilfully neglected the precepts of morality, or, becoming victims to the wickedness of others, suffer the effects of sin. Filled with shame, they seek these imposters, and the result is a broken and shattered wreck. See the artful traps laid for simple-minded women, who, sooner than perform the allotted part designed for them by the Almighty, seek out these villains for their "sure preventatives" of the cares of maternity. What is the result? A broken-down constitution, dragging through the wretched years of life, or an untimely grave.

Again, see the long list of patent medicines, bearing the high recommendations of some well-known chemist or distinguished personage, with here and there an M. D. thrown in to give an air of respectability and catch the unwary,—winding up with the recommendations of a few

clergymen,—all giving a helping hand to the great work of delusion, whether wittingly or not. And thus I might go on with the long roll of deceit, but it is too lamentable and one would only feel the littleness of mankind and the disgrace resting upon the profession.

Perhaps, if we come home, a sprinkling of quackery may be found in our own ranks. The signs at least show it,—else where comes the mania for specialties? When physicians advertise they pay particular attention to this or that part of the human body, without doubt there must be a tendency to a false practice. We will probe it a little, no matter if we touch a tender spot; so much the more need of searching. In the outset let me say there is no desire to declaim against all the study or research a man may bring to bear upon the practice of medicine. It is all needed, and however proud we may be of the great strides already made by the eminent of our art, yet we will be ready to acknowledge that much more remains to be learned. But I doubt if the world is any the wiser, or if the profession has gained anything from this fashion so rife for specialties. It has certainly not been the specialist who has made the discoveries that have honored our calling and benefitted the world. Among the distinguished names in the history of medicine we find none of this stamp. And should this course be pursued, in time our profession will be so divided up that the physician, like the watchmaker, will have but a small part of the mechanism allotted to him. Skilled it may be in a particular branch, but ignorant as regards the rest,—his superior knowledge of one part of the human system not compensating for a deficiency in another, the result may be a narrow-minded professor instead of the clear-headed, general practitioner.

The true practice of medicine demands men with broad and open minds, possessing a general knowledge of the *laws which* govern life and the penalties which nature in-

flicts when they are disregarded. This is needful, no matter how much time and study we may have given to this or that particular point; and rest assured the world will find it out in due season and give us credit for all we deserve, without our belittling ourselves and the profession by flaming advertisements. Indeed, every physician, if he has any pretension to medical skill, should know about these specialties and devote particular attention to them, else he sadly neglects his duty. The student must take the human body as a whole study, and when I say student I iuclude the entire profession, from those who have just received the sanction of some medical school up to the gray-haired physician.

One great error in the history of medicine has been the constant search for specifics,—the idea continually running in the mind that, somewhere in nature, there must be a panacea for every disease of mankind, forgetting at the outset that disease is the penalty of broken laws and that most of life's ills are from our own neglect, many times brought on wilfully. Even at this late day there is as much search for them as there ever was in the middle ages for the philosopher's stone or the fountain of life. It is this idea which has helped to build up the countless number of quacks and flooded the world with nostrums. This must be ended if we want a practice built upon a true foundation, and though we may use the remedies nature has spread about us with a lavish hand, yet always bear in mind she has furnished us with no sure antidote to an infringement of her laws.

A defect in the practice against which we should remonstrate, and a modern one too, is the constant use of the speculum, a use which often runs into abuse. I will not wholly condemn this instrument and cast it aside, but I will say, (and I believe in so saying a large majority of the profession will sustain me,) that it is used needlessly hundreds of times by the class of specialists who "pay

particular attention to diseases of females"—not only used needlessly, but often with positive harm. I do not believe there is any necessity for making vaginal examinations with the speculum in every complaint a female asks the advice of a physician about; nor is it right to charge them all to the uterus; that much-abused organ has enough to bear which the laws of nature have imposed upon it without being made the pack-horse of every female difficulty that is daily saddled upon it by the specialists who are more constantly supplied with the speculum than with more useful things. No! the woman of our day suffers so much from false education, through ignorance of the laws which govern her organization and from following the foolish and wicked decrees of fashion, that we who profess the healing art should allay, instead of adding to her distress.

What blots upon the profession are those men with a speculum always at hand, subjecting every female who can be induced to employ them to a vaginal examination with that instrument; their eyes must see every case, and I have no doubt as many imaginary sights appear to them as wonderful sounds in times gone by were heard by those who constantly had an ear to the stethoscope. And I have even known these specialists to carry their absurd notions to the point of introducing the speculum in young girls of twelve and fourteen years of age. To undergo this operation, a woman must be placed in a position extremely unpleasant to a sensitive female; then, with wise looks and I doubt not many times with a morbid curiosity, the speculum is introduced. What can be seen? How much more knowledge gained of the case than the finger could give without this shock given to the modesty of every true woman.

It is only when the case unequivocally demands it that we should take up the speculum. Acting upon this rule *it would be* seldom needed, for there are but few diseases

of the female organs in which the touch will not give all the information we can possibly obtain. The constant use of the speculum is wrong. It does not belong to the true practice of medicine. It is degrading, immoral—an outrage upon the sex, a disgrace to the profession. We may be mealy-mouthed about it, as the timely expression is, and call it by another name, but in truth it is arrant quackery. No sort of surprise should be excited when we see female physicians multiplying so fast and female medical colleges springing up over the land. When women know the indignities they must submit to at the hands of these specialists, and are told that it is the custom of the whole profession, how can we blame them if they prefer to confide their afflictions to those of their own sex?

Men are too prone to catch at every new idea that may be broached. When a new theory is advanced, or remedy discovered, or new instrument invented, we rush to extremes, and although in a majority, if not all, there may be good for mankind, how often is the use carried to abuse! Time generally remedies all this as experience teaches us our errors; yet it is, nevertheless, our duty, with the light of knowledge and reason given us, to denounce the evils of any system, theory or specialty that we know is wrong and can only result in injury to our fellows.

There is another fault which has been fruitful in building up these false theories we lament; one we have to look for only in our own ranks. I refer to the jealousies so common among medical men. In truth we may almost charge it to ourselves that quackery is so rife; the quarrels and ill-feeling among those who should be united has left the door open for charletanism of every kind. This is a state of things truly deplorable. Can we find a cause? Does it arise from an over-crowded state of the profession? If so, then it is our duty to warn the many young men now flocking to our medical colleges to select some

other walk in life. I believe not. There is room enough for every true physician to use all the skill he can command in mitigating disease. But it comes from the petty feelings of envy we nourish in our bosoms until they pervade the whole system. Perhaps this is more prevalent among those who practice in small cities and country towns than in large places. The difficulties to be encountered in following our profession are severe enough without this being forced upon us; yet it is so common as to become dreaded most of all at the commencement of business and even far into life. For example, let a young physician enter a new locality and launch out upon the uncertain sea of his profession and how soon will he bring down upon himself the displeasure of the surrounding physicians. If they meet him in their rounds he is only saluted with a formal bow and a countenance which says as plain as words, you have no business upon my territory. Instead of encouragement he meets with rebuff, and that too from those who should, of all others, reach out the friendly hand. He is only mentioned as the young fledgeling with no experience.

Then look upon those who have practised side by side for years. What unmanly remarks of one another! and, (alas, that I must say it,) they will even descend to mean devices to disparage a brother practitioner. And yet these very men would consider it the greatest insult to have their honor called into question. How pitiable, that when we enter the medical profession, we should sink the man! How many of us can recall these instances to mind and with them the thought that we too have sinned? If so, the true practice of medicine requires of us repentance if we would be true men. We know the remedy,—let us apply it, and, by so doing, we shall raise our profession to a high and dignified position.

The true practice of medicine imposes grave and responsible duties upon all who claim to be its teachers. If

we refuse to accept them, the world, when rational ideas regarding medical treatment prevail, will have just cause to call us and our profession false and unworthy. Among these is an honest purpose, a fearless practice and a gentlemanly course. With these animating him, the true physician feels a just pride in the service he is called upon to render by the couch of the sick and dying; he strives manfully to alleviate suffering, trusting in God for help, —conscious that without that his labors would be in vain: by study and experience he increases the skill which will enable him to search out the defects in that wonderful work of the Creator, the human body; no jealousy rankles in his bosom; with a spirit of confidence he seeks counsel and gives it with a brotherly feeling, taking no advantage of the innocent mistakes of another,—realizing that to "err is human." He believes his profession to be the noblest man can desire; and his fellows will regard him, not as the mere dispenser of medicine, but their friend and adviser. May we accept the model and strive to imitate it. The nearer we approach such a character the sooner will false practice vanish.

The *materia medica* of the true practice of medicine embraces everything which experience, science and art has brought to light—whether from the animal, vegetable or mineral kingdom, and *its* disciples are the only real eclectics. Duty and honor demand they should select only the best of this great store. If the boundless forest of the botanic offers its treasures; if cold water can furnish relief; if homœopathy, with all its absurdities, has taught anything; if the mineral world with the much-abused drug mercury at its head holds out the needed remedy, they are at our service. From the great wealth of nature choose the remedies that reason dictates, and apply them with judicious skill to nature's relief. She may be at times strong enough to throw off disease without our aid; if so, stay the hand. When resolved upon a course of

treatment, pursue it with a clear and determined purpose —administering the proper remedies with gentleness and as little pain as possible to the suffering patient. A wise look and solemn shake of the head never cured disease, and although it may have once conveyed the idea of knowledge, it will not cover up ignorance now. The world has learned better, nor will it stand the heroic treatment and enormous doses of by-gone days. I doubt not the pockets of many a doctor would be searched in vain for that once all-powerful instrument of mischief, the lancet. The world certainly progresses, and with it the practice of medicine, and if we have at this day much to sorrow for, yet we have great cause to rejoice.

A great and powerful influence for good or evil is exerted by the physician upon all within his sphere. Sensible of this, how essential that his character and practice should be based upon the sure and solid foundation of truth. Naught in word or deed demoralizing should ever emanate from him. He, above all other men, needs a clear and sober mind, and he should never, by precept or example, countenance the evils of intemperance. The true physician never speaks lightly of religion. He who thinks a disregard of that or a sneer at the belief others will carry the idea of profound thought and study, is the fool and only deserves contempt, for the wisest and best of earth have all, at sometime or other in their lives, given convincing testimony upon the side of Christianity. With all due deference to the influence of the minister among his fellow-creatures, his is second to the doctor's; he alone sees man in his lowest estate. Humanity, showing to others a strong and stalwart exterior, to the doctor's eye only exposes the weaknesses of the race. Into his ear are whispered the most awful secrets; to him alone of mortals is the heart laid open. At times he is permitted to hold out the hope of a longer stay upon the earth; at *others to* announce the stern approach of death. The in-

fluence of the physician is well described by an English writer in these words: "We may lie to the lawyers, we may lie to the confessor, but to the doctor we cannot lie. The murder will out. The prodigal pressed for an account of his debts will keep one back; the penitent will hide one sin from his ghostly director, but from the doctor we can hide nothing or we die. He is our greatest master here upon earth. The successful tyrant crouches before him like a hound, the scornful beauty bows the knee, the stern, worldly man clings desperately to him as the anchor that will hold him from drifting into the dark sea that hath no limit. The doctor knows no rank. He only realizes, acknowledges, values, respects two things—Life and Death." Conscious of such great influence over the minds of his fellow-creatures, the true physician will ever exercise it justly; in his hands the trust will never be betrayed.

In the *True practice of medicine* we have a profession worthy of man's highest ambition. Adopting that, he stands upon a platform broad and catholic,—its foundation the eternal principles of truth. His *materia medica* embracing the good wherever found, discarding everything improper and injurious; an upright and candid course the only dealing with his patient, and the golden rule his sole guide of conduct toward his brother physicians;—when *this* system prevails, although it may not bring the wished-for millenium, yet it will be an era of great joy to man and the death-knell of quackery. During our day and generation, the physician who makes this practice his own may not acquire riches or renown, but something far better will be his gain—the possession of a clear conscience and a well-ordered life. It will win for him the esteem of the good and true. At the bedside of suffering it will nerve him with greater strength to battle with the death-angel for a little longer lease of life; and when his labors are finished his reward will be the assured satisfaction that

his duty was rightfully performed. He may be the plain country doctor, plodding through storm and cold upon an ill-paid task, unknown beyond his own little country circuit, yet in his bosom there will beat an honest heart filled with the conviction of a right performance of duty. His practice of medicine will be the *true* one, and, when life's troubled dream is ended, his epitaph—

HE WAS A TRUE PHYSICIAN.

REPORT ON SURGERY.

A. H. ROBINSON, CONCORD.

Every contribution in science, every additional or corroborative fact, however insignificant in itself, has its value, inasmuch as it goes to add something to the great mass which the ages, in their ceaseless and majestic flow, have left deposited for the enrichment of the world. The tiny rivulet, that unheard and unnoticed, sings its song of sweetest melody upon the far-off hill-side, and the stream of the valley, whose generous aid gives new richness and beauty to the green verdure through which it silently courses,—each, as well as the broad river, upon whose swelling bosom the navies of the world are upborne,—each does its part in forming that great "wealth of tide" which, amid the wonder and admiration of the world, is poured into the mighty ocean. All eyes, indeed, are for the broad river with no thought for the rivulet and the stream, and yet, without the rivulet and the stream it might not be the great river. Thus, looking at great results, we do not notice, or we fail to appreciate the importance of those initiatory steps by which such results are attained, and still these initiatory steps *have* their importance. Were it not for considerations such as these, one would with hesitancy and misgiving offer his crude thoughts to the notice of this body; and yet the associations connected with the place and occasion would seem to

have something of inspiration in them, and should prompt one to use his efforts—insignificant though they may be—for the advancement of a cause which all should have so much at heart.

As it might be deemed presumptuous in me to take up the time of the Association in the detail of cases, such as ordinarily occur in surgical practice, and which are furnished by one's own personal experience, (and I have already found that one must rely upon his own experience for material upon which to make his reports to this Society,) I shall endeavor no farther to trespass upon your forbearance in that regard than may be deemed necessary for the proper illustration of the subjects touched upon; and yet I can not refrain from relating the particulars of one case of fracture which has fallen under my observation during the past year, and which, from its rather unfrequent occurrence and from the obscurity of the symptoms attending it, as well as the consequent liability to error in its diagnosis, seems to me to present points of interest sufficient to warrant the calling of your attention to it.

In September, 1865, I was called upon to visit Master P——, who, it was said, had injured his shoulder by falling from a tree. I found the patient, a rather slender boy of twelve, lying upon his right side upon a bed, and apparently in great pain. He was pale and bathed in perspiration, and on attempting to sit up became faint. He referred his distress to the left shoulder, which, on examination, presented a rather severe contusion over the coracoid process; the natural fulness and rotundity of the joint not appearing lost to any great extent; but on comparing this shoulder with the right, there was some flattening of the deltoid, and on placing my fingers beneath the acromion process I could feel a vacancy between that process and the head of the humerus. Upon pressing upon the contused part over the corocoid process, the *sharp point* or the edge of a bone could be felt. When

directed to elevate the arm I found he could only flex and extend his fingers, not having power to flex even in the slightest degree the forearm or to raise the arm. The limb was, however, readily raised by me to the horizontal position, and when it was in that position there was observed a corrugation or *puckering* of the integument for an inch or two over and around the abraded spot. Upon making firm traction upon the humerus and gently rotating it outwards, this deformity, if it be right to call it such, was removed, and there was, I think, an obscure crepitus to be perceived. When I placed my fingers deeply in the axilla I could distinctly feel the head of the humerus, which did not move when the arm was rotated. The left arm, by admeasurement, was slightly the shortest. My diagnosis of the case was "fracture of the humerus at the anatomical neck, with partial dislocation." For treatment I applied the clavicular bandage, placed a thick pad in the axilla, splints before and behind upon the arm, which I bound firmly to the side, with the forearm flexed at nearly right angles with the arm. After the application of splints the boy expressed himself as nearly free from pain. At the end of the fifth week the splints were removed, at which time my patient could feed himself, could place his hand upon the top of his head without bending his neck, and could raise his arm to nearly a horizontal position. On doing which, however, the puckering of the integument was still perceptible, though in a slighter degree than at first.

Cases like the foregoing are mentioned by Sir Astley Cooper and other surgeons, but this is the only one of the kind which has fallen under my observation, and from its character and infrequency, it in my opinion, merits notice. The good use which the patient in so short a time recovered of his arm, appeared to me somewhat surprising. It only shows, however, what nature can do in a good, healthy constitution.

If the maxim be true, that "an operation is quickly performed that is well performed," it is, I think, no less true that many operations were better not to have been performed. The great progress that has been made in surgery is manifest, I think, in nothing more strikingly than in the successful treatment of many diseases of a chirurgical character, without resort to operative proceedings, or, when such proceedings are called for, by making use of those of a more conservative nature. It is a mistaken and pernicious idea, if entertained, that most great surgeons found their reputations upon their operations. Sir BENJAMIN BRODIE,—I think it was,—after a most brilliant career as a surgeon, remarked that "he had but little fancy for the *operative* part of surgery;" and Sir ASTLEY COOPER said of himself that "he was not fit for the performance of the more delicate operations in surgery,"—and yet what two English surgeons of modern times stand higher in the profession as sound, wise and eminently successful practitioners than they?

Appropos of Sir ASTLEY COOPER, the anecdote is related, that being in Paris, he was conversing with DUPUYTREN upon professional matters, when he was asked by the latter how many times he had performed a particular operation of difficulty, and upon his replying "some five or six times," "I," said DUPUYTREN, with an air of triumph, "have operated over fifty times." "Indeed," was the rejoinder, "and with what result?" "Oh," said the Frenchman, "*my patients all died.* How was it with your half-dozen cases?" "My patients," quietly replied Sir ASTLEY, "*all recovered.*" Now which of the two was the better surgeon? The one used the knife, the other exercised sound judgment. The one was a most brilliant operator, the other a most able conservative surgeon.

However much the *expectant* practice in surgery may be decried, or how greatly to be deplored may be timidity in *the use of instruments* in cases strictly demanding opera-

tive aid, it is undeniable that the judicious application of general principles to the treatment of cases of disease of a truly formidable character, has been the means of saving many useful limbs which formerly would have been sacrificed, and preserving in their integrity parts which would have been marred and mutilated. And yet alas! how great the temptation, how importunate the demand for the surgeon to resort to extreme measures, when we consider the nature of the reward too often held out to him for so doing. The false standard, in too many cases held up by the community in general, of judging of one's eminence, not by the limbs and lives he has saved, but by those he has sacrified, and the reward bestowed upon those surgeons who are loyal to the false standard are indeed almost overpowering inducements for desertion from the truth. Patronage, sudden wealth, rank, eminence, all are in prospect; while on the other hand, plodding industry, tardy appreciation or misconception of his ability, and *a good conscience*, are all that the obverse of the picture presents.

To perform well and skillfully a capital operation, may be, and indeed is, "a great thing," and it entitles the surgeon to all the credit which he receives for his labor; and yet there is danger that a too exclusive attention to these great facts in surgery may cause neglect of other duties quite as important and of much more frequent occurrence. Sir Benjamin Brodie's advice to his pupils to devote their time to the dressing of "cut fingers and old ulcers," and not to wander from hospital to hospital to witness great operations, had certainly no little of sound common-sense in it, and is deserving the consideration of practitioners as well as students, (for unfortunately practitioners are not always students,) inasmuch as it is these every day affairs,—these "cut fingers" and "old ulcers," which mainly occupy one's attention in practice, while the great operations—as they *are called*—are the exceptional cases

that occur, and we can hardly establish a law or found a just reputation upon exceptions. And besides, a man can show his skill as well, if not in healing "cut fingers," at least in successfully managing "old ulcers," as in almost any branch of surgery. Indeed, if there be anything in the practice of the profession which tries the patience of the surgeon almost beyond endurance, I think it is *ulcerated legs*, whether the sore be acute, sub-acute or chronic, irritable, or indolent, varicose, or what-not. After laboring for weeks on an ulcer, and just as you begin to congratulate yourself that your efforts give promise of success, to find all your labor lost on account of the imprudence of an hour, or even from no discernible cause, is vexing enough. If "the perfect and upright man" of "the land of Uz" had his sores upon the legs, and they proved as intractable as ulcers in such situations do in these days, no wonder, if his wife had them to treat, that she should in her despair have advised him "to curse God and die."

But thanks to the efforts of Scott, of Bromley in England, and of Mr. Critchett, these old ulcers, the opprobrium of the profession, are much more amenable to treatment. By rest in the recumbent position, by appropriate constitutional treatment, and depletory measures, and by simple water dressing during the acute and sub-acute stage of the ulcer, and by after-strapping with lead plaster from the toes to the knee, or even above it, and by the use of a roller over the adhesive strips, the cure is accomplished in the most obstinate cases, the patient at the same time (after the application of the strips) walking about and attending to his ordinary avocations with comfort. I can bear my testimony to the value of Critchett's plan, as it is called, in the few cases I have tried it. I will refer to one case, that of an old lady who had a large, ill-conditioned ulcer upon the leg, near the ankle, which *had tormented* her for several years. She had applied all

sorts of unguents and "all healing salves;" had taken any quantity of alterative medicines, and drank gallons of Shaker and other Sarsaparillas, and all to no good effect, for the ulcer persisted in being foul and ill-conditioned. When first seen by me, the ulcer was deep seated, extremely irritable and discharging a dark brownish matter. The leg, particularly in the after part of the day, was swollen and very painful. After rest and the use of simple dressings for awhile, the strips were applied from the toes to the knee. This woman, who before the application of the strips could not put her foot to the ground without extreme distress, at once began to walk across her room with perfect ease, so complete was the support afforded to the limb. The strips were removed in a fortnight, and the ulcer was almost entirely healed. After one other application the sore had entirely cicatrized; and during all this time, after having the plasters applied, my patient was about her ordinary household duties. Now surely here is some progress in the cure of this troublesome disease.

In this country, all or nearly all, medical practitioners are general practitioners; and hence it is of the highest importance that just views should be entertained of the relation which medicine bears to surgery, and to inquire if the same principles which apply to the practice of the one are not, due allowances being made, applicable to the pursuit of the other; or, in other words, if his means and appliances prove successful to the physician in the removal of diseases which come strictly within his province, why may not like means and appliances prove of the same avail in the hands of the surgeon in the restoration of those coming under his care? If the one is to act as the assistant of nature, in her efforts to throw off disease, why should not the other? Experience proves that in a much broader sense than is generally supposed, these questions are to be answered in the affirmative; for by far

the largest part of the surgeon's practice is what may be called *non-operative*. And yet, do we not sometimes forget that the aim of true surgery is something else—something higher than the deftly using of polished instruments, —something nobler than a system of "cutting and slashing?" When DEMOSTHENES, as we learned in our school days, was asked what was the first part of oratory, he replied, "Action"; and the second? "Action"; and the third? "Action"; and do we not, at times, proceed as if we considered the surgeon's first, second and third duty to be to "operate." How many have been needlessly maimed,—how many made cripples for life, and how many lives have been sacrificed by this indiscriminate use of the knife and the saw, is known only to the Omnicient One; but it would seem as if some of us were emulous of the vulgar nickname given in England to members of the College of Surgeons,—that of "sawbones." We all have seen cases of amputation, where there is every probability the limbs might have been saved; and others, where amputation was vehemently urged (and as vehemently resisted), and where a little care and attention,—a fair amount of patience, and a good degree of trust in nature's powers, would have saved serviceable members of far more value than all the wooden contrivances which a PALMER ever invented. I will mention a case: A soldier, in battle, received a gun-shot wound in the foot, the ball traversing the foot from side to side, near the ankle joint. After some weeks he was sent home, with the order to report at the nearest hospital at the expiration of his furlough; which order he obeyed, but was allowed to remain at his father's residence. Soon after this, his regiment followed him home for the purpose of recruiting, when two of its surgeons visited this soldier, advised, and even insisted upon amputation of his leg. The matter was reported to the hospital surgeon, under whose supervision the man then was, who forbade any interfer-

ence. The foot was not amputated, and the man, twenty-two months after the receipt of the wound, is engaged in active business, which requires him to be much of the time upon his feet. He has but a slight limp in his gait, and wears a boot but a trifle, if any, larger than the one upon the other foot. He would not exchange this scarred limb, he says, for a dozen wooden ones. One other case: Some nine or ten years ago, a case was verbally reported by me to this Society, of a man who dislocated and fractured the ankle, but who, after the entire loss of the astragalus, recovered with a good and serviceable limb. In fact, within a year after the removal of the bone (the astragalus), he was walking about with only the aid of a cane. And yet he was strongly urged by a then member of this association to have his leg amputated, and it required no little persuasion on my part to induce him to persevere in his treatment. The result was as I have stated, with the addition that I came near, I believe, being prosecuted for *mal praxis* in this case, but escaped! So much for the interference of brethren in the profession, and for the gratitude of patients!

I hardly need mention that many abnormal growths, bearing strong resemblance to those of a malignant nature, are entirely benign in their character, and can, therefore, not only be removed by operation with perfect success, but may also, sometimes, be carried off without resort to cutting instruments. Certain tumors of the female breast, for instance, on restoration of the impaired general health, will take care of themselves—or the absorbent system will take care of them. They disappear gradually, but more rapidly than they came; and yet these tumors are not infrequently treated as of malignant character. I was conversing with an old practitioner who had a high local reputation as a surgeon, and he informed me that he had removed the schirrous breast *four* times, with *three* complete recoveries. He was un-

doubtedly honest, but he either mistook the character of his cases, or he was very fortunate in the result of his amputations; which was it? That it was the former, I am satisfied from the two following considerations, which will not, I dare say, appear of so great force to the Society as they do to myself, and it would not be strange if they did not. The considerations are these: I have amputated the female breast several times for supposed cancerous disease, and at different stages of the disease, and have assisted other surgeons of good repute in amputating several more, and I am compelled to say that I have seen but one recovery, that is, but one in which the disease did not recur, and that one I am now convinced, was not a case of cancer. This may be regarded as one consideration, and the other may be inferred from the history of the following cases:

Mrs. I——, of Andover, aged about thirty-five, of a a dark, sallow, cachectic and anxious look, emaciated and careworn, presented herself for examination. She stated that she had a tumor in her breast of several months standing, which was gradually enlarging, and was at times quite painful. I found embedded, apparently in the substance of the gland, a hard, rounded lump, somewhat flattened, of the size of a small orange, or the half of an orange. It was not very painful on handling, and did not appear to be attached to the muscles beneath. The glands of the axilla were unaffected. She was put upon a tonic and alterative course, and in a few weeks the tumor had nearly disappeared, while her general health had greatly improved. At the end of about three months from her first visit, her improved appearance was very striking; she had regained a full rotundity of person, had a healthy countenance, with ruddy cheeks, and appeared altogether another person. On examining the breasts, they both appeared alike plump, and full as those of a *well-made*, healthy girl. There was no abnormal growth

in either. Now, here was a case which at first sight would seem to have warranted operative proceedings; and yet there was entire removal of the disease without resort to cutting instruments. And this case is by no means an isolated or exceptional one. I am sure that the experience of surgeons will furnish many such. If it be objected that the fact that the axillary glands were intact, was enough to prove the disease non-malignant, I would reply that in one of the worst cases of diseased breast that I ever saw, in which the tumor, after removal, weighed five and a half pounds, the glands of the axilla were totally unaffected at the time of the operation; and yet in this case the disease recurred in a few years, and was the cause of the woman's death.

One other case, not, however, of mamillary disease. A lady consulted a surgeon, and one of very extensive practice, too, in reference to a somewhat troublesome swelling upon the shoulder, about which she began to feel some anxiety. She was urgently advised to have it removed, upon the ground, I believe, that it was of a suspicious character, and perhaps malignant. By the advice, however, of a friend, she deferred for the time submitting to an operation, and made application of a very mild, simple wash to the tumor, which, under this treatment, in a few weeks entirely disappeared. This lady died, some years after this, of phthisis, the disease of the shoulder having never returned. But it is surely unnecessary to multiply cases of this kind.

I will now make a few brief remarks in regard to *gangrene*, having reference to cases which occurred in Depot Hospital at Concord, in 1863 and 1864. And here let me premise that I am obliged to draw entirely upon my memory for what I have to say upon this subject, as the register and case-book of the hospital have passed out of my hands.

This disease first appeared at Depot Hospital in the

summer of 1863, in the person of a stout, robust soldier, who was suffering from a flesh wound of the leg. We had, a few weeks prior to his attack, received an accession of about sixty patients, who were left by the Second Regiment, on marching for the front, among whom were some cases of gun-shot wounds, but the great bulk of whom was made up of those suffering from malarial and syphilitic disease and rheumatic complaints. These men, for want of room, were obliged to be placed temporarily in a barrack, which had been used a year or more by soldiers preparing for the field. We took pains to cleanse it as thoroughly as possible, but after all our efforts it was, of course, very far from being what it should have been for the comfort of the men. However, we contrived to get along as well as circumstances would permit; but before we could get new wards prepared at the hospital, we were obliged, by order of the military commander, to remove into another old barrack, much worse than the one we then occupied. It was while we were moving, and during the visit of the Medical Inspector, that this soldier called my attention to the then condition of the wound upon his leg. The Inspector's notice was directed to the case, who at first suspected that the ulcer might be specific; but close investigation at the time, and its subsequent history, too plainly showed its character. In this case, after the wound had sloughed and new granulations had formed, and the ulcer had cicatrized, or nearly so, gangrene again attacked it, destroying all the newly formed tissue, and manifestly reducing the patient. This process was gone through with, I think, for the third time, before recovery, which was slow and tedious, eventually took place.

We had some few cases of gangrene, perhaps not more than half a dozen in all, after this during the year, all of which recovered. They were none of them of that terrible character described by authors, and did not require

the prompt and energetic treatment advised, and which we afterwards found so essential.

We had been some weeks in our new quarters at Depot Hospital, and were congratulating ourselves upon the improved condition of things generally around us, as well as upon the satisfactory state of nearly all of our patients, when we were again visited by the disease. This was, I think, in 1864. A soldier on furlough reported at the Hospital with a gun-shot wound of the leg, and in a shockingly depressed condition, from the effects of gangrene, which had made severe ravages, and was still unchecked. It seemed a wonder that he had strength to ride from his residence in order to report, and the prospect of his recovery was indeed gloomy; but he did recover eventually. Not long after the reception of this man, we began to have frequent accessions of cases of gangrene among those who had been severely wounded, nearly all of whom had suffered from the disease previously, had partially recovered and were sent North (prematurely as it proved) for change of air, and who were again stricken down, their wounds for the second time taking on a gangrenous appearance. In the spring we received in one day, about one hundred and twenty men, among whom were something like twenty with gangrenous wounds, some of them of the most frightful character, and others dropped in at different times after this, so that we had in all fifty or more cases (I mention the minimum), varying in severity from those which might be called mild to those of the most severe description. These men were isolated, as far as practicable, and other wounded men who were unaffected by gangrene were forbidden from entering the ward in which they lay; and yet, new cases would occasionally occur, and on inquiry, it would be found that they had stolen into the forbidden ward to see those so much worse afflicted than themselves. It was many weeks before we succeeded in

entirely getting rid of this disease, and many more before we ceased to feel apprehension of its return.

Gangrene, which has always been the dread and scourge of hospitals, and which has often baffled the skill of the most eminent physicians in its management, was from the beginning, with us, treated upon general principles. We followed no prescribed rule, but treated each case upon what we considered its merits; but the first steps were always "cleanliness, separation, and free exposure to the air." On the peninsula of Spain, in 1813–14, the English army suffered severely from gangrene. Mr. GUTHRIE's tables show an average mortality in five hospitals of nearly one in three of those attacked. There, as we are informed, strong depleting measures were called for, and successfully practised at the invasion of the disease; but it was far different with us. In no case did we bleed, and rarely had we occasion for any medicine of a strictly depletory character. But then, it is to be considered that our patients had been transported several hundred miles, with none too great care, before entering the hospital, were in a tired and depressed condition from that cause, and were besides, in many, perhaps most of the cases, suffering from the effects of malaria upon the system. We were obliged, then, from the commencement, to put them upon a tonic and stimulant treatment, with opiates to allay pain and produce sleep, while at the same time we gave them all the animal food the stomach would bear. For topical treatment, we in no instance used the actual cautery, but relied upon chloride of zinc, nitric acid, bromine, chloride of soda, tincture of myrrh and charcoal poultices, &c., while chloride of lime was freely used in all parts of the ward in which the dangerous cases were placed. Our favorite internal remedies were the mineral acids, iron and quinine, lupulin and rhubarb, ale and porter, wine, &c. The result of the treatment was, I think, on the whole satisfactory, the rate of

mortality not ranging higher than in many other diseases in private practice. We lost in all, from the effects of gangrene, *three* cases. One of these, with gangrene of the fore-arm, had been treated at home, had evidently suffered from want of proper care, and on admission was found to have lost from gangrenous ulceration, all the superficial flexors of the fore-arm, while the disease was still progressing. We, however, succeeded in checking its spread, the ulcer having nicely cleansed itself, new and tolerably good granulations having sprung up, and the pulse showing a fair amount of strength. We hoped we should save the man, but during the absence of the surgeon, secondary hæmorrhage occurred, and although a tourniquet had been placed upon the arm, as a precaution, before it could be checked by the attendant, the patient had so sunk that he died in a few hours. The second case of death was that of a man with gangrene of the leg. He was so depressed from the ravages of disease, that his case, on admission, was considered hopeless. He lingered a few weeks, resisting all efforts to improve his condition, and then died. The third case was that of gangrene of the thigh, at the lower third. This patient had been some weeks in hospital, had so far improved that the surface of the wound, which had become free from pain, did not exceed an inch in diameter, and was discharging healthy pus. The knee joint had not, prior to this time, become affected, and we had ceased to feel anxiety in regard to him, when one of my assistants recalled my attention to his case. I found the leg below the knee swollen and tender, with an obscure sense of fluctuation. A bistoury was introduced into the swelling, evacuating half a pint of extremely offensive matter. The man soon began to sink, when, as the only resort, it was determined to amputate. I removed the limb near the middle of the thigh, the patient rallying well after the operation; but gangrene attacked the stump the next day; secondary

hemorrhage occurred, and death followed in about twenty-four hours after the operation. This was my first and last case of amputation for gangrene.

It is proper to state that we had many other cases of gangrene, which to all appearances were fully as severe as the three which resulted in death; one with gangrene of the leg, in which the tibia was denuded for six inches in length, the bone becoming carious to that extent, and was removed, the man recovering; another with gangrene of the chest and arm, down to the elbow. In this case, which of course required the closest watching, the great vessels of the axilla and under the clavicle were laid bare, and could be distinctly seen beating, and yet this man made a most rapid recovery. But it is unnecessary to multiply instances.

On the whole, I think I am warranted in the belief that our management of the disease was in the main judicious, and the result all that could have been reasonably hoped for.

From the history of the cases coming under our notice, we are satisfied that the *immediate* agents producing this disease were exposure, fatigue, too crowded quarters, improper diet, and want of care. The *original* cause of hospital gangrene is now, I believe, generally believed to be "a morbid poison, contagious, and as many think, infectious." Mr. GUTHRIE'S explanation of the origin of this poison, is perhaps, as reliable as any that has been given. "It is," he says, "tripartite. It originates in consequence, 1st, of a failure in the discipline of the army; 2d, of a failure in its medical organization, and 3d, from the absence of a sufficient number of good surgeons, regularly drilled to their various duties."

In the treatment of the disease, complete isolation of the patient is essential, with good air and the most perfect cleanliness as indispensable aids. The topical applications *should be* such as have been alluded to, and after the fall-

ing off of the slough, the parts should be dressed as in ordinary cases of surgery. The constitutional treatment should be upon general principles, each case to be managed according to the circumstances attending it.

I have thus, in a desultory, and I am aware, in a very imperfect manner, touched upon certain surgical topics which I deemed might be of interest; and if any apology be needed for the apparent egotism of relying so exclusively on my own experience for material with which to fill my paper, I must refer to the circumstances in which, as a reporter, I have been placed, and would beg to remind those gentlemen who have given me their assurances of contributions in surgical practice, that, aside from Governmental notes, *promises to pay* are not regarded as *legal tender*.

TRANSACTIONS

OF THE

NEW HAMPSHIRE

MEDICAL SOCIETY.

(SEVENTY-FIFTH ANNIVERSARY.)

PORTSMOUTH, JUNE 27 AND 28, 1865.

MANCHESTER, N. H.:
PRINTED BY C. F. LIVINGSTON.
1866.

PROCEEDINGS.

The seventy-fifth annual meeting of the New Hampshire Medical Society was held in the city of Portsmouth on Tuesday and Wednesday, June 27 and 28, 1865.

The meeting was called to order by the President, JOHN CLOUGH, M. D., of Lebanon.

On motion of Dr. CURRIER, the reading of the proceedings of the last meeting was dispensed with.

The Council recommended the following named gentlemen, who were duly elected Fellows of the Society:

A. E. EMERY, M. D., Concord.
J. C. CLOUGH, M. D., Greenland.
S. L. F. SIMPSON, M. D., Concord.
JAMES FARRINGTON, M. D., Rochester.
JOHN F. BROWN, M. D., Chester.
JAMES FURGUSON, M. D., Manchester.
C. W. CURTIS, M. D., Portsmouth.

A committee of three was appointed by the Chair to examine credentials of delegates from other Medical Societies, consisting of Drs. DIXI CROSBY of Hanover, C. P. GAGE of Concord, and THOMAS SANBORN, of Newport.

Committee to Examine Patients.— Drs. A. B. CROSBY, T. WEBSTER and A. SMALLEY.

Committee to Audit Treasurer's Account. — Drs. L. FRENCH and L. W. PEABODY.

Committee on Nominations of Officers and Delegates for the Ensuing Year. — Drs. G. A. CROSBY, A. H. ROBINSON, G. B. TWITCHELL, L. G. HILL, A. SMALLEY, N. W. OLIVER and T. M. GOULD.

Dr. E. K. WEBSTER of Boscawen, announced the death of MATHIAS SPAULDING, M. D., of Amherst, the oldest member of this Society.

Drs. E. K. WEBSTER, ALBERT SMITH and T. P. FITCH were appointed a committee to report on deceased members.

Drs. THOMAS WHEAT and N. W. OLIVER were appointed a committee to confer with the Savings Bank with reference to the Bartlett Fund.

On motion of Dr. PARKER of Farmington, the case of Dr. MCINTIRE was indefinitely postponed.

At 12 o'clock the President, Dr. CLOUGH of Lebanon, delivered the Annual Address.

Dr. OLIVER of Portsmouth, extended to the Society an invitation from Rev. Dr. BURROUGHS, President of Portsmouth Atheneum, to visit that Institution, and to visit his house and garden. Dr. OLIVER also extended the invitation of the Mayor and City Authorities to the Society for an excursion down the Harbor.

On motion of E. K. WEBSTER, the invitations were accepted and the thanks of this Society were extended to Rev. Dr. BURROUGHS, the Mayor and City Authorities, for their hospitalities.

The committee on credentials introduced Dr. ENOS HOYT and Dr. FOGG of Massachusetts, Dr. WOODWARD of Connecticut and Dr. JEWETT of Maine as delegates from their respective State Medical Societies, and they were invited to take seats with the Society and partake of its hospitalities.

At 2 1-2 o'clock the Society adjourned to partake, with invited guests, of their annual dinner at the Rockingham House, to meet again at 7 1-2, or immediately after the return from the excursion.

At 4 o'clock, P. M., the Society, in company with the Mayor, City Authorities, Admiral Bailey and other officers, went on board the steamer Pioneer, visiting the Navy Yard and the new double-turreted Monitor lying at her moorings in the harbor, returning at 7 1-2, P. M.

EVENING SESSION.

Met according to adjournment, the President in the chair.

The committee on nomination made their report, which was accepted.

Voted, That the Secretary deposit the report as a ballot, by which the following named gentlemen were duly elected officers and delegates for the ensuing year:

President.— W. D. BUCK, M. D., Manchester.

Vice President. — R. P. J. TENNEY, M. D., Pittsfield.

Secretary. — NATHAN CALL, M. D., Suncook.

Treasurer. — THOMAS WHEAT, M. D., Manchester.

Councillors. — S. CUMMINGS, A. B. CROSBY, WILLIAM LEIGHTON, C. F. P. HILDRETH, D. T. PARKER, T. H. MARSHALL, G. B. TWITCHELL, W. H. H. MASON, H. B. BURNHAM, E. CARTER, A. A. GERRISH, W. WATERHOUSE, B. F. SKINNER, D. S. PRESCOTT.

Censors. — G. MONTGOMERY, LEVI P. DODGE, R. W. PRICE, J. DANFORTH, L. B. HOW, R. THOMPSON, G. A. CROSBY, W. DARLING.

Delegates to Dartmouth Medical College. — GEORGE B. TWITCHELL, A. BICKFORD.

Orators. — C. F. P. HILDRETH, H. B. BURNHAM.

Substitutes. — J. F. HALL, L. B. HOW.

Standing Committee on Surgery. — A. H. ROBINSON.
On Practice of Medicine. — L. C. BEAN.
On Epidemics. — N. CALL.
On Obstetrics. — N. W. OLIVER.
On Publication. — N. CALL, L. B. HOW.

On Arrangements. — A. B. CROSBY, J. CLOUGH and L. C. BEAN.

Delegates to State Medical Societies. — *Massachusetts.*— L. G. HILL, G. B. TWITCHELL.

Rhode Island. — W. D. BUCK, T. M. GOULD.
Connecticut. — ALBERT SMITH, E. K. WEBSTER.
New York. — F. P. FITCH, R. P. J. TENNEY.
Vermont. — JOHN CLOUGH, DIXI CROSBY.
Maine. — J. F. HALL, W. LEIGHTON.

Delegates to American Medical Association. — T. J. W. PRAY, J. C. EASTMAN, A. H. ROBINSON, P. A. STACKPOLE, J. P. BANCROFT, H. B. BURNHAM, T. J. W. PRAY, G. B. TWITCHELL, C. P. GAGE, A. SMALLEY, E. K. WEBSTER, W. D. BUCK, N. W. OLIVER.

The report of the delegate to Dartmouth Medical College was read by Dr. BEAN, which was accepted and referred to committee on publication.

The report of Dr. PRAY on the practice of medicine was read and referred to the committee on publication.

The oration of Dr. A. B. CROSBY was read and referred to committee on publication.

Resolved, That Prof. ALBERT SMITH of Peterboro', be requested to prepare a paper for publication, to be read at the next annual meeting of this Society, on the abuse of topical applications in the treatment of diseases of the uterus.

Resolved, That the thanks of this Society be extended to His Honor the Mayor, the City Government, Admiral BAILEY and Rev. Dr. BURROUGHS, for their kindness and

attentions during the sojourn of the Society in this city, and for the very agreeable and delightful excursion down the harbor.

Voted, That the amendment to article 2 of section IV., passed last year, be rescinded.

Voted, That those of the members who have paid the annual tax of 1865 have the excess refunded to them if desired; if not, that it be credited to their account.

Voted, That the publication of the transactions be deferred one year.

Voted, That a committee of three be appointed to examine and consider if any alteration of the constitution or by-laws be necessary, and report at the next annual meeting.

Drs. DIXI CROSBY, ALBERT SMITH and A. B. CROSBY, were appointed that committee.

Dr. ENOS HOYT of Framingham, Mass., presented to the Society, with interesting remarks, an engraved portrait of EDWARD JENNER, M. D.

On motion of Prof. SMITH, the thanks of the Society were extended to Dr. ENOS HOYT for the beautiful engraving of the immortal JENNER.

On motion of Prof. CROSBY,

Voted, That each member at the next annual meeting present some favorite prescription to the Society.

Voted, That Drs. ENOS HOYT of Massachusetts, ASHBEL WOODWARD of Connecticut and JEWETT of Maine, be admitted as honorary members of this Society.

Voted, That the next annual meeting of this Society be held in Hanover, on the first Tuesday of June, 1866.

Adjourned.

N. CALL,

Secretary N. H. Medical Society.

PRESIDENT'S ADDRESS.

GENTLEMEN AND FELLOWS OF THE NEW-HAMPSHIRE MEDICAL SOCIETY:

It has become my duty, as it has been that of my predecessors, to address you upon some medical subject. Since the organization of this Society, many venerable heads have passed away. As time rolls on, many more will soon follow, and I cannot express my views any better than to use the words of the poet:

> "A weary path I've traveled, 'mid darkness, storm and strife,
> Bearing many a burden, struggling for my life;
> But now the morn is breaking, my toil will soon be o'er,
> I'm kneeling at the threshold, my hand is on the door!"

And we hope and trust that their places may be filled with those who are true and will do justice to their calling. When we call to mind those illustrious men who founded this Society under circumstances of great difficulty, we can this day appreciate their efforts. No one who has attended the annual anniversary of the New Hampshire Medical Society, but has gone home wiser if he wished so to do. We meet to greet each other and exchange views, that we may be better prepared to discharge our duty to the sick patient. The mind is continually on the alert. *New theories* arise; no matter how vague, they all have

their followers; they will all pass away. The old school will stand firm, like the old oak of an hundred years or more.

Gentlemen, assembled as we are here, under the auspices of the medical profession of New Hampshire, meeting in the presence of the citizens of this ancient and beautiful Strawberry Bank, honored by the recollections and associations of the past, coming as we have in considerable numbers from distant portions of the State, abandoning for the time our private engagements and professional toils, as if only to enjoy the social amenities and the pleasures of professional reunion, these two questions would naturally arise in the minds of those who are merely witnesses of the spectacle presented by our assemblage: For what purpose is this convocation of physicians? What is there in the nature of their particular pursuits which prompts them to relinquish its rewards, to forego the inducements of home, when there is no visible manifestation on their part of a design to promote those objects which center in self interest, to advance the purposes of sectarian ambition or political partizanship?

In fulfilment of a duty incident to the position which I have had the honor (by your partiality) to hold for the past year — a year full of startling incidents, long to live in the history of self-government — a year full of pleasant recollections to myself, I shall, whilst designing in brevity to follow the example of my honored predecessors, attempt some feeble hints on the effect of mental influences upon our physical frame.

Before entering upon the task, I beg you to indulge me one moment in repeating to the New Hampshire Medical Society my assurance of gratitude for the distinction and kindness I have received at its hands, and for the personal manifestations of confidence and the acts of courtesy bestowed upon me, the recollections of which will linger in my memory and lessen the consciousness of my weight

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which excites the feelings and affections too much, will disturb that harmony of action between the mind and body. This may be proved by the effect of revolutions, since in all great political changes and disturbances, all feelings and selfish passions, such as ambition, pride, courage, fear, anxiety, disappointment, &c., serve to exhilarate or depress the mind. Disagreeable affections have a great influence on automatic life. They often produce torpor in every irritable part, especially in the circulating and absorbent system, contraction and slowness of the pulse, a laborious, slow respiration, sighing, a general langour and lassitude, and a sense of oppression. The lungs are loaded with blood, the heart is full, there is contraction, shrinking and paleness of the skin, and coldness in the extremities. The effect, however, differs in various individuals. Sometimes in anger the face glows with heat and flushes with blood; at another time it is deadly pale, and the features shrink. It excites morbid action in the liver and alters the secretions of the bile, not only in quantity but also in quality, whence diarrhea, vomiting, colic, or jaundice arise. It excites the heart and arteries to a preternatural degree of action, accelerates the circulation of blood through the heart and arteries, but retards its return through the veins.

There are other causes which disturb the mind, to the great injury of its material frame, among which is medical superstition in its various forms. Anything couched in mystery is received and swallowed down like a sweet morsel. There seems to be in mankind a desire to be deceived. Upon this is built the great platform of quackery; upon this the mind is tossed about like the ocean wave. It is not the least extraordinary feature in the history of medical superstition that it should so frequently involve in its trammels persons who, on every other occasion would resent with indignation any attempt to talk them out of *their reason* and persuade them out of their senses.

And yet we have continued proofs of its extensive influence over powerful and cultivated minds. "In ancient times we adduce the wise CICERO and the no less philosophic AURELIUS, while in modern times we need only recall to our recollection the number of persons of superior rank and intelligence who are actually persuaded to submit to the operations of mesmerism and spiritualism. Lord BACON, with all his philosophy, betrayed a disposition to believe in the virtue of charms, and BOYLE seriously recommended the thigh bone of an executed criminal as powerful remedy for dysentery." There are some of our first men in society, of good native talent, good education, who stand high in the estimation of their fellow men, who occupy high stations, capable of doing honor to themselves and their constituents, who are sane upon all other subjects that come before them and perfectly insane upon the subject of medicine. A quack can lead them as easily as you can lead a child. They do not stop to investigate; they take for granted he is all he pretends to be. They take his compounds, without knowing of what they are composed, and recommend them to others. There is no professional class of men who sustain quackery more than the clergy. After visiting the sick patient and administering to his spiritual wants they think they are doing *God's* service to recommend a bottle of quack medicine, thereby disturbing the mind of the patient, lessening his confidence in his physician, and prolonging his disease. All I have to say to this class of gentlemen is, "hands off; attend to your high calling and we will attend the sick." I do not lay this to the charge of all the clergy. There are some who are gentlemen and attend to their own duty, and let our business alone. Who that has been conversant with the sick-bed does not know that the mind of the patient should not be disturbed? His mind, as well as his body, should be at rest, free from all exciting topics.

For the physician is only the minister of nature; his duty is to follow her in her march, to aid her when she wavers, to rectify her when she wanders from her path. The physician should stand like the sentinel upon the wall and warn every one to keep away; for the visits of friends and those that are not friends are oftener a curse than a blessing.

Before concluding my address you will pardon me if I make some further allusions to our situation as physicians. Some of the best intellects of our country are among this class of men. Well may the New Hampshire Medical Society feel proud of such men as BARTLETT, TWITCHELL, OLIVER, MARTIN, and many others whose epitaphs have been written, and whose memory will be revered through all coming time: and we have in our Society at the present time high-minded men—yes, men who will compare favorably with their fellow men in other professions, men who have filled places of honor and trust aside from the medical profession.

And now, gentlemen, it is not all sunshine with the physician; he has his dark and stormy days. He sometimes meets with a cold-hearted selfishness which nearly chills his aspirations for usefulness. The trials from false brethren are by no means slight. Open and high-minded himself, he has yielded his confidence to a professional brother, who, to accomplish sinister ends, has come to him with a smooth tongue. Too late to meet the evil, he finds that his reputation has been assailed under the guise of friendship, while thrust after thrust has been made at points the most sensitive, and, as he had himself thought, most secure. There is honor in open hostility, but the secret enemy cannot be met on equal terms by the honest and upright man. Joab took the unsuspecting captain aside in the gate, and while speaking quietly to him, smote him under the fifth rib. There are too many *Joabs in our* profession, who base their prosperity upon

another's downfall. The true doctrine is, man should not be an enemy to man, especially in our profession. How many times have I felt the weight of responsibility lifted from my shoulders by the counsels of an honest brother! Physicians should deal honestly and justly with each other so that, when calling in counsel they may be perfectly free from all fear of losing either their reputation or their patients.

And now, gentlemen, in closing these remarks, I would congratulate you upon the auspicious condition of our country after four years and more of a gigantic civil war. I would congratulate you not only upon the return of peace, but upon the fair and encouraging prospect that lies before us. Thanks to a merciful Providence that amid those dark days of treason and organized rebellion, when large and powerful armies were engaged against the government, and some foreign powers connived with the insurgents, our national life has been preserved. We cannot be too grateful for the maintenance of our liberties. We cannot be too thankful for the continuance of those benign institutions of our land which our forefathers bequeathed to us and sealed with their blood. As long as one spark of patriotism remains in our hearts, or one drop of pure American blood flows in our veins, these principles and these inalienable rights of man will, I trust, remain precious and dear to us. As members of the medical fraternity, we have not failed to take an interest in the welfare of our country. While the contest has been long and bloody, while the clash of arms has been loud and fierce and while tens of thousands of sabres have gleamed in the sunlight, leaving the dead and the wounded thickly strewn on many a battle-field, we have not ceased to pray for the victory of right over wrong, and that freedom and humanity might triumph over oppression and barbarism. And, gentlemen, we rejoice once more to see the eagle of justice and liberty

perched upon the banner of our nation, unharmed and unplucked of a single feather. Looking back over the past year, what wonderful achievements do we behold! How thickly crowded with great and brilliant events have been the twelve months since last we met together. The starry folds of our national ensign have flashed out their light and meaning over all that broad and error-bound land which extends from the Potomac to the Gulf, and from the Atlantic to the Rio Grande. The rebel capital has been taken, and the powerful armies of the confederacy have surrendered. The head and leading spirits of that bogus government have been captured, and will, we trust, receive an adequate punishment for their crime. In fact, the war has ended and re-construction has commenced. Truly, the record of the past year contains much that is joy-inspiring to our hearts. Only one thing has occurred to darken the cheering picture over which we cast our retrospection. The cruel and revolting deed of assassination which befell our beloved chief magistrate, and which was designed to reach several of the leading men of the country, stands out to appall and sadden our hearts, when we take this backward glance. Abraham Lincoln, the kind and humane ruler, the wise and clear-sighted statesman, fell a martyr to the cause of his country. Seldom has a nation been so afflicted, seldom has the moral sense of the world received such a shock. For, while he was enthroned in the hearts of his countrymen for his many virtues and for his wise and benevolent acts, his name was honored all over the civilized world. As the steady pilot of the great ship of state through a dark and stormy night, and as the emancipator of millions long held in bondage, he will be sacredly held in the esteem of all true and generous souls and his memory will be revered forever. But while we lament his tragic end, let us rejoice that the wheels of our republican form of government roll steadily on, and that *the union* will be restored, purified and saved "yet so as

by fire." From this trying ordeal through which we *have* passed, and are *now* passing, we shall come out with renewed vigor and strength, and the whole land shall again resound with the songs of peace, hightened by the rejoicings of universal freedom. With rebellion conquered, slavery abolished, and order restored, what shall hinder our country from going on from one degree of prosperity to another, until it reaches that proud eminence of greatness, power and wealth, which the world has never seen? Surely, with these things accomplished, we may well indulge the hope of a permanent peace, and look forward in faith to a glorious future. To this end, then, as true and patriotic citizens, as well as faithful physicians, let us labor with energy and zeal. And while we seek to remove the diseases which pertain to the body *human*, let us do what we can to eradicate the evils of the body *politic*.

THE SIGNIFICANCE OF PAIN.

BY A. B. CROSBY, A. M., M. D.

What is the ideal of a man? A well proportioned, sound, beautiful and active body; a sharp, energetic and and productive intellect; a vigorous, warm, reaching and regulated imagination; a determined and courageous and lively sensibility. When these qualities exist largely in a man he is physically great and happy.

Such is the highest physical type of man as drawn by one of the most accomplished of New England divines, and such was Adam before the fall. When Satan in the disguise of a cormorant perched upon the tree of knowledge, and gazed into the garden of Eden, he saw what no mortal has since seen, a perfect man. Tall, erect, noble, god-like, Adam stood beneath him in all the purity of native honor. Fair was his face; full and honest was his eye. Lines of decision and firmness could be seen about his mouth; yet there was a certain something in the eye, an easy expansion of the nostril, and an occasional tremor about the lip, which spoke of the tenderness of woman. His rich, luxuriant hair hung all unkempt about his head. His head was a model such as PRAXITILES never knew. His muscles, well-developed by healthy exercise, rendered his figure full and powerful, yet lithe and graceful. As he stood thus unconscious of his doom, Adam *was indeed* the goodliest man of men. No cursed ca-

chexia marred the transparent delicacy of his skin, no hereditary taint slumbered a volcanic fire portending future ruin. His brain was large, clear, and comprehensive. The intricate system of nerves was moving on like a delicate machine that knows no friction. The full, broad chest, the free, easy respiration, the regular, gentle pulsations of the heart,—all indicated that this creature was exempt from disease and death. His appetite was keen for the simple fruits of paradise, and digestion brought with it no pain. The interstitial changes going on in the tissues were so well proportioned, assimilation and disintegration were so well balanced, that man might have lived forever. All the complicated functions of man, fearfully and wonderully made, were faultless. The co-ordinated actions of this perfect being moved on with the harmony of the spheres. Like one who sees the softened beauties and listens to the exquisite music of a dream, Adam knew only pleasure. There was for him no consciousness of suffering. He knew it not. And thus it ever might have been till the last syllable of recorded time. Adam, created in the image of his maker, might have been immortal. The cry "now let this mortal put on immortality" would never have been heard on earth. God-like man, surrounded by his peers, would have known neither sorrow nor death. Disease could never have reared its hydra head, nor suffering brought the human family to a painful consciousness of existence. The sweet would have had no bitter, the rose would have had no thorn, and we, gentlemen, should have had no need to sacrifice on the altar of ÆSCULAPIUS to-day, since our vocation would never have had an existence. When we glance at the picture that *might* have been we are sick at heart. For the reverse is to the original as light to darkness, virtue to vice, heaven to hell. What wonder then, if, like NISROCH, we cry out in agony of spirit

"What avails
"Valor or strength, though matchless, quelled with pain
"Which all subdues, and makes remiss the hands
"Of mightiest? Sense of pleasure we may well
"Spare out of life, perhaps, and not repine,
"But live content, which is the calmest life.
"But pain is perfect misery, the worst
"Of evils, and excessive, overturns
"All patience."

I propose to offer a few thoughts upon the significance of *pain*. Before, however, proceeding with our subject it may not be time misspent if we consider briefly some of the causes that may produce pain. In many instances the sequence in cause and effect can readily be made out, while it must be confessed in innumerable instances nothing is patent except the fact.

It may be stated as a generally accepted fact, that iritation of some part of the nervous system is always the direct cause of pain. This irritation may be centric, eccentric or mediate; that is, the irritant may be present either in the nerve-center, at the periphery, or along the course of some of the nerves. In many instances the cause of disturbance is mechanical. It can frequently be detected and removed to the entire relief of the sufferer, as when a musket ball or other foreign body has lodged in a part.

Pain, as is well known, is a characteristic sign of inflammation. The cause of suffering in this morbid condition seems to us now sufficiently simple, and yet it has been the subject of much contention. It is undoubtedly due to the turgescence of inflamed parts, the vessels being so much distended as to induce a painful tension of the *vasa vasorum*. It not unfrequently happens too, that the nerves themselves take on the inflammatory process, with the consequent exaltation of the sensibility. Formerly it was supposed that inflammatory pain was due to the formation of new nerves in the part. This theory long since *exploded*, because it was demonstrated that new nerves

are rarely formed during inflammation and then only at a late period. Pain, however, we well know is among the earliest symptoms. The cause of the pains of labor is evident, yet many paroxysms of agony, as in severe neuralgia, &c., remain unexplained. In regard, then, to the intimate nature of pain we know little or nothing; still there are some facts connected with the subject that are well established. We know that there must be a certain mental perception on the part of the brain, without which no sign of pain is evinced. In fact, the patient must possess consciousness or there can be no cognizance of pain. Persons under the influence of chloroform may undoubtedly suffer severe pain and yet give no indication of it through lack of consciousness. A person may apparently suffer extreme agony, yet, if an apoplexy supervenes all indications of distress are lost. Patients afflicted with paraplegia frequently suffer distructive inflammation of the legs or viscera, and yet without any perception of suffering. Now in all these instances the brain is either insensible to impressions, or the nervous connection between the morbid part and the brain has been dissevered. It would be useless to speculate upon those interstitial changes connected with the nerves, which may perhaps be a frequent cause of human agony, because they are inappreciable by any methods of investigation within our ken. Not to dwell, then, too long upon a subject concerning which, at the best, we know very little, let us consider the significance of pain.

Aristippus, Hieronymus and others of the old philosophers thought that pain was the worst of all evils. We of a later civilization believe that by sin came death, and that pain is an inevitable attendant upon the fell archer. In this the popular mind is deceived, for however painful may have been the hours of disease, the final scene is painless. Death is a gentle monster, for it blunts the senses as it comes. Doubtless the popular creed in regard to

pain is the same as that entertained by the wise men of old. In opposition to all this I shall respectfully lay down my first proposition, viz:

That pain is not an unmixed evil, but is a beneficent gift of God designed for the self-preservation of all animals, and that each is endowed with this sense to an extent only sufficient to insure this result.

It is a well known fact that the state of the mind intensifies either pleasure or pain, and hence it will be best for us to consider first the sense of pain in connection with the lower animals, since their sensations are not liable to be distorted by their instincts. I believe that the proposition which I have laid down is applicable to all brutes; that some of them when mutilated suffer little, and others not at all. But before adducing facts to prove this proposition it will be well for us to consider what the proofs of pain are. Some persons have erroneously supposed that convulsions are a sign of pain, but nothing could be farther from the truth. So far from indicating suffering they only show that the brain has lost its control over the rest of the nervous system. Aside from a feeling of muscular soreness I have never known a patient conscious of suffering during these terrible paroxysms. Nor is the cry of an animal any proof of pain. No uproar can be greater than that which a pig makes on being seized however gently, yet it would be absurd to regard this as a mark of pain. The struggling of animals has sometimes been construed as a sign, but this may be owing to their natural timidity and impatience under restraint. The question can perhaps be better decided by observing how far animals are disturbed by mutilation.

During the bloody battle of the Fair Oaks I saw the fore leg of a horse carried away by a solid shot. He fell but made no noise, and so far as I could see gave no evidence of pain. On the contrary, he soon struggled on to *his three legs* and commenced feeding. In stooping I

saw the stump frequently strike the ground, but the horse gave no signs of disturbance. During the engagement the Federal forces were driven back some two miles before the impetuous onset of the rebel army, and I lost sight of him. Thirty-six hours afterwards, the lost ground having been recovered, I was ordered by Gen. Casey to scour the field with a corps of surgeons and ambulances for the relief of the wounded abandoned on our retreat. Among the first things that fixed my attention was the same horse which had survived the battle, quietly feeding, surrounded by the killed and wounded as they had fallen in the fight. This horse looked in good condition and seemed to pay no attention to the mutilated leg, although the bone protruded through the soft parts and the wound was filled with maggots.

A Scotch gentleman, by the name of ROWEL, published an article a few years since in the Ed. New Philosophical Journal, in which he gives some very interesting facts bearing upon this question. Some of these I have appropriated as quite significant.

A post horse fell in harness, lacerating the skin and tendons over the fore fetlock joints. The tibia and fibula protruded, the feet turned back, and he walked on the ends of the bones. The driver being unwilling to take the responsibility of killing the animal, turned him into a field near by. Next morning the coverings were observed forced half way up the legs, holes having been made four inches deep in the ground by the protruded bones, and yet the horse looked well and apparently felt well.

An Oxford coach horse dislocated both fetlock joints, aud travelled on the ends of the bones till they were worn smooth. Incredible as it may seem, the accident was not discovered until the coach stopped to change horses. In this latter instance it is supposed that a spirited horse might have the courage to keep up, surrounded by other

horses, but in the former instance there was nothing to stimulate the animal. The facts in these two examples remain the same.

Naturalists tell us that dormice frequently eat off a part when mutilated. Rats, when pressed by hunger, have been observed eating their own tails. The same fact has been remarked of monkeys, and at times in menageries it becomes necessary to dip their tails in tobacco to prevent this. At the Jardin des Plantes in Paris an old hyena having broke his leg immediately set to work eating it off with great gusto. I have freequently witnessed the emasculation of animals, with very slight, if any, signs of pain. Pigs frequently eat the testes as soon as removed. Pigs, it is true, make a great outcry when killed, but this is believed to be the result of fear rather than pain, for if the animal is stuck unawares he frequently remains quiet, making no outcry whatever.

In these instances the pain is evidently much less than in corresponding injuries inflicted upon man. The Divine beneficence is conspicuous in this because pain is neither so necessary nor so useful to brutes as to men. Rabbits and hares, it is believed, are susceptible to little or no pain, this sense in them being superceded by other senses. They are very prolific, but it is probably rare that one dies of old age. They are the natural prey and food of wildcats, weasels, foxes, and other carnivorous animals; when caught they are incapable of resistance, and hence pain would be of no advantage to them, either to warn them of danger or to excite them to struggle against it. The lack of this sense is compensated by very prominent eyes, set so far back on the side of the head as to enable the animal to see in every direction. Its ears are large, and capable of turning so as to catch the slightest sound, and its innate timidity keeps it constantly on the alert. It is a well established fact with hunters that hares do not cry out *when shot if* they have a chance of escape by hiding.

When, however, they are pursued and in danger of being caught, or when they are ensnared in a net, their cries are piteous, although they cannot of course arise from pain. When once seized they seldom cry, and are easily dispatched, apparently without pain. Rabbits when pursued by weasels cry out, but remain motionless and are finished without suffering. Every boy who has followed the woods knows that a rabbit caught in a steel trap frequently pulls away from it leaving tendons lacerated, or even bites the leg off. A rabbit was once caught by a hunter which had lost three legs in this way, but it was fat and lively, and fed well. Rats also have been known to bite the leg off when caught in a trap.

Now it is well known that beasts of prey, animals that gain their living by hunting, never do this. They may sometimes lose a leg, cut off directly by a trap, but as a general thing will never gnaw off an extremity. Foxes and animals of a similar character have often been found starved in traps. A rabbit, under the same circumstances, would have speedily freed himself. Such facts as these seem to show conclusively that the sense of pain was designed for the preservation of animals, compelling them to take due care of themselves. The beneficence of God is to be remarked in this, that no animal has a greater share of the sense of pain than is necessary for his preservation.

A rabbit or a rat, though inconvenienced by the loss of a leg, can still provide themselves with their usual food. But the loss of a leg to foxes and other carnivora, is likely to be the signal of starvation unless their game is unusually plenty. To these animals legs are of the utmost importance, and hence they are endowed with a sense of pain proportionate to their usefulness, and to insure their preservation.

Crabs and lobsters throw off claws after fright or injury, with indifference. Their sense of pain is very slight, nor is this sense essential to the crustaceous tribes; coated

with armor strong enough to resist all minor enemies, the sense of pain would be of no value to them because any animal that had power to crush their shells must inevitably destroy them. They evidently suffer great pain in hot water, but none after mutilation. Nature has furnished a covering protective against injury, but as they may range all parts of the sea, a sense of temperature is probably essential to keep them in those parts which they are formed to inhabit. It may be that this sense of temperature tells them not only the part, but the depth of the sea necessary for their young to reach maturity.

Sir HUMPHRY DAVY, who devoted much time and research in investigating the habits and peculiarities of fishes, came to the conclusion that their sense of pain is trifling. A celebrated naturalist affirms that a single cod deposits nine millions of eggs. Of these only a few hatch, and out of myriads perhaps four reach maturity. As the rest of these are eaten it seems probable that Divine goodness has rendered them little susceptible to pain.

As far as insects are concerned the sense of pain is obviously slight. Thus a wasp has been observed to eat a fly immediately after its own abdomen had been cut away. Cockchafers have been seen crawling about and eating voraciously after the same injury. It is a common fact in entomology that the dragon-fly will eat for a long time after being fastened down with a pin. That God should have rendered these animals only slightly susceptible to pain seems all the more probable when we take into account the slaughter constantly going on among the lower classes of animals. The number of flies destroyed by a single pair of swallows must be enormous.

In proof of this law of destruction, the author already quoted relates the following incident: "I once observed a rather extraordinary illustration of the law of nature to eat and be eaten. I kept in a glass globe a variety of

the smaller aquatic animals, such as the larvae of the dragon-fly, &c., and one day introduced among them a few of the common water newts, and water beetles, one of which was the *ditiscus marginalis*. The dragon-flies had been living upon the animalculæ, &c.; the newts attacked and devoured the dragon-flies. The next morning I found one of the newts lying at the bottom of the vessel half eaten, and while looking on saw the *ditiscus* attack another newt. Not wishing to have them all destroyed, I took the *ditiscus* out of the water and put it in the sunshine a few minutes, when it flew away, and had not gone more than thirty or forty yards when a sparrow flew after and caught it. This constant destruction of life would be fearful to contemplate if there is truth in the quotation so often made, that 'the poor beetle that we tread upon, in corporal suffrance finds a pang as great as when a giant dies.'"

If now we turn to man as the highest type of organization we shall find that, as in the case of the lower animals, the sense of pain is highly important to guard and warn him against injury and insure the preservation of the species. The integument of the body is exceedingly sensitive, and on the slightest injury gives instant and painful warning of the danger. The physiologist well knows that the brain, the heart, lungs, &c., are insensible because they are protected by bony walls, and hence the sense of pain is unnecessary. But although the lungs are insensible, the mucous membrane is exceedingly sensitive, because constantly exposed to injury. The fingers, as tactile organs, are very much exposed and therefore very sensitive. If any one doubts this, let him place his fingers upon a red hot surface or suffer from a thecal abscess. The sensibility of the conjunctiva is excessive because constantly liable to injury, but I have several times introduced a cataract needle through the remaining coats of the eye and the patient has remained unconscious that the

wound had been made. The buccal and gastric mucous membranes are very sensitive in order to guard against the introduction of irritants.

The sensation of cold is painful; yet without it the inhabitants of arctic countries would all die for want of a suitable warning against their deadly enemy, King Frost. A burn is an annoyance; but without the sense of pain, and in moments of absence of mind, an entire limb might easily be destroyed. Without this sense irritants would constantly destroy the eye-sight, and there would be no end to the dangers to which man must succumb.

Thus we see in man, as in the lower animals, the sense of pain is the wise dispensation of a merciful Providence to warn against danger, and arouse the individual to make an effort for self-preservation. The dangers of life would be infinitely greater were it not for this monitor which guards him from injury and checks his excesses.

Nor is it in health alone that pain is useful to man. If one were to ask a sick man what he esteemed to be the greatest evil, he would undoubtedly award the premium to pain. Yet in disease, racked and distracted by its envenomed fang, man has cause for gratitude that the sense of pain was not denied him; which brings me to my second proposition, viz:

That even in disease pain is not an unmixed evil, but, on the contrary, is one of the most valuable pathognomonic signs.

It is in its relation to morbid action that it is of the utmost importance to us as physicians. I think I have shown that in all animals a sense of pain is more or less essential to the preservation of the species. I propose farther to show the significance of pain in the diagnosis of disease. In the different morbid processes taking place in the body pain varies from the slightest exaltation of nervous sensibility to extreme agony. Formerly all pain was supposed to be due to inflammation, but this

theory is obviously incorrect. Thus, the violent pain of muscular spasm may be due to irritation without any inflammatory condition being present. So, too, the intense pain of neuralgia is seldom, if ever, inflammatory in its character. Nevertheless, intense pain is so often associated with increased vascularity in a part that perhaps it will be well for us to consider the relations of pain to inflammation, and incidentally to other morbid conditions.

Irritants excite pain and usually, but not always, vascular excitement. Sometimes there may be intense pain without it, and possibly it may be due to some disease of the nerves themselves inappreciable to our methods of observation. The acuteness of pain in a part depends not upon the size of the nerves, but upon the number involved. It is especially severe if the nerve happens to be delicate and pulpy. It was long ago observed that the intensity of a pain was directly proportionate to the density of the diseased tissue. Some of the firmest tissues, such as bone, tendon, ligament, &c., contain, it is true, only a few nerves, but the pressure to which they are subjected is terrific, and the pain therefore excrutiating. When the tension is very great, not only the nerve of the part is affected, but the brain itself is disturbed and delirium is the result. Serous membranes are very tightly spread upon the parts adjacent to them, and hence, when inflamed, the pain is intense. Mucous membranes, on the contrary, are so loosely attached to the subjacent tissues that little pain attends them when diseased. These facts show that pain is due not only to the sensibility of the tissue, but also to its unyielding nature.

It was early observed that many of the tissues had a pain peculiar to themselves. Thus pain in the skin is of a pricking, burning nature; pain in serous membranes is acute and shooting, in areola tissue, dull and throbbing. Sometimes extensive *disease* may affect the parenchyma

of organs without giving any signs of pain. In cancer the pains are frequently lancinating, in glands and bones it is obtuse and heavy. A sensation of weight and throbbing generally indicates suppuration, and is likely to be followed by a cessation of pain. Pain also differs very much in its character. It may be intermittent, is often remittent, or may be so slight as only to amount to a feeling of soreness on pressure. The internal organs act normally without our consciousness, but in disease we become cognizant of them through pain, and we *feel* that we have a stomach, or that we have lungs. These are evidently intended as warnings to us of what is injurious. The severe pain of spasm dependent upon reflex action is occasioned by the compression of the nerves. This pain is relieved by sudden pressure, while inflammatory pain would be aggravated by it. Occasionally very gentle pressure may relieve inflammatory pain by preventing the influx of blood, but as a rule it aggravates it, especially if suddenly applied. Sudden relief of inflammatory pain generally indicates that gangrene has taken place.

Usually pain is recognized, and the patient's idea of it is definite. Some persons, however, are in a state of hyperaesthesia. If pressure is made any where they complain especially in the epigastrium and hypochondria. We are to be on our guard against these false pains, for frequent mistakes of this kind have led to an active antiphlogistic treatment which has been in no sense sanctified to the patient's good. Pain is by no means always present even when complained of, for, if the attention of the patient is diverted, we may find that the pain either has been exaggerated or is wholly wanting.

The significance of pain in young children might not at first seem to be easily translated, yet, if carefully watched, the signs of pain in infants are quite as constant and less frequently perverted than the same signs in adults. The cry of pain in these little ones is obstinate and long con-

tinued. If the cry is smothered and the respiration hurried, we are to look to the thorax for the cause of the pain. When the cry is husky, the pain is generally due to some catarrhal affection, either of the larynx or trachea. When the pain is sudden and severe, as from the prick of a pin, from colic, from peritonitis, or other abdominal pain, the cry is short and rapid. When the child persists in screaming and rolling the head, the pain is generally located about the brain. It is not uncommon for infants to place their hands on the point of distress, and a physician may often entirely unravel the case by employing pressure over the different organs *seriatim*, at the same time watching the expression of the face. This matter of the relation of pain to the diseases of children is one of great importance, and could be profitably dwelt upon at length would our limits permit.

It has already been stated that pain ceases on the supervention of gangrene, but intense pain is sometimes rendered latent through a lack of sensibility in the sensorium, the direct result of disease of the brain. This state of affairs may be seen in fevers where, during the existence of an inter-current inflammation, the brain may suddenlv become affected, and as the sense of pain is no longer present we might falsely conclude that the inflammation had subsided. Practically we may observe from such facts the necessity of making a daily interrogation of all the great organs essential to life during the continuance of a disease.

In regarding pain as a sign of disease it is especially important to make out its exact seat and limit. It is always well to request the patient to put the hand on the seat of pain, as popular notions in regard to the location of the different viscera are generally unique. It is essential, too, that we trace every possible nervous connection with different parts. A correct knowledge of the distribution of the nerves will frequently give us an important

clue, especially if we take into account the possible reflex actions of the part. From the fact that we are accustomed to refer sensations to the terminal extremities of the nerves, the source of irritation may be found far away from the seat of pain. Sometimes the irritation may not be found in the nerve complaining, but in the associated nerves. Above all, we should bear in mind that pain in the periphery from deranged nervous centers is as common as irritation of the centers from a peripheral source. This nervous connection cannot always be readily traced, but in a vast number of instances it can directly be made out. It has been very much the fashion to call such pains sympathetic. Many instances of this are seen in every physician's practice. Brow-ache after eating ice, pain in the head after gastric irritation, and pain about the knee in coxalgia are familiar illustrations. Other examples may be seen in the pain of the penis and thigh which attends diseases of the kidney and bladder; the pain about the calf of the leg accompanying irritation of the colon; and in the neuralgia of the face which follows irritation of the abdominal organs. A common case in point is pain in the shoulder symptomatic of a diseased liver.

The expression of the face furnishes us with most valuable indications in making up our judgment of the particular viscera in distress. Thus affections of the head are characterized by contraction of the forehead and eyebrows, with a wild, staring or dull expression about the eyes. Dilation of the nostrils, upward contraction of the commissures of the mouth and cheeks, together with upheaving of the shoulders, is a sure sign of pain connected with the thoracic viscera. If, on the contrary, the cheeks fall in, if the commissures of the mouth are drawn down, if the features are elongated and pinched, if the eye is sunken, with pallor of the skin, we may be sure that the abdomen is the seat of pain. An expression of great de*jection,* with a cadaveric hue of the skin, is the exponent

of the pain which attends chronic affections of the urinary organs.

In its relations to disease I have already affirmed that pain accomplishes a ministry of good, yet we are not for an instant to forget that it is a two-edged sword. It is undoubtedly a blessing, yet it may of itself prove fatal. If any proof of this proposition were necessary, we have but to recall the melancholy sight of a puerperal woman, worn out and dying from the exhaustion of intense pain. Every physician knows the intense pain which attends the rupture of the gall-bladder, and has perhaps seen the sudden and fatal syncope which may follow it. In certain idiosyncrasies the sudden incursion of intense pain sometimes induces a state of torpor as though the patient were stunned. There is in fact in these instances little pain, since the nervous shock is so overwhelming. Intense pain, when long endured, is likely to absorb every other feeling, and renders the patient insensible to surrounding impressions. At other times severe pain may induce convulsions or delirium, or may even excite vomiting, with arrest of secretion, &c. But in all these instances pain is soon followed by exhaustion and torpor. Long continued it exhausts the strength and impairs all the vital operations. It has justly been said that pain is the greatest sedative in the world.

From these and similar considerations which might be advanced we arrive at the conclusion that pain is an agent for good so far as it serves as a pathognomonic sign, but an agent for evil so far as it tends to death through a depression of vitality. The important practical deduction from all this is that our earliest efforts in the treatment of disease should be directed towards the relief of pain.

My third and last proposition is this, viz: *That the intensity of pain is largely dependent upon the mental condition of the person suffering.*

"Men" says EPICTETUS, "are tormented with the opin-

ion they have of things, and not by the things themselves." While it would hardly be safe to accept a doctrine as sweeping as this, there can be no doubt that all emotions, whether of pleasure or pain, may be intensified indefinitely by direct volition. The hypochondriac, who concentrates his whole nervous energy on a pain in his toe, may intensify his suffering to the verge of agony. The same pain in another, his attention being resolutely fixed on something else, soon becomes insignificant and perhaps is wholly forgotten. Nor is this fact, which has been often remarked, at all inexplicable. The continued effort at fixing the nervous power on a given point does modify the nutrition of that part. Such a cause has often induced disease in parts before perfectly healthy. If this be so, by how much the more would a pain already existing be intensified.

It is a matter of common observation after battles that the signs of pain evinced are more intense after a defeat than after a victory. During our recent civil war my attention was repeatedly called to the fact after general engagements that the bearing of the first soldier suffering an amputation was generally the indicator of the tone of all the rest within his range. If this soldier gave way to loud expressions of pain it seemed to intensify the pangs of all the rest, but if he happened to be of a philosophic turn of mind and made light of his pain, the rest would seem to vie with each other in their fortitude and indifference to suffering. Nor was this a mere fancy, for the moral effect of this nervous diversion was admirable. I am well satisfied that the number of recoveries was rendered by it larger, and the actual pain much less. So that the aphorism of EPICTETUS contains the germ of a true philosophy.

This power of nervous diversion has had many marked illustrations in the world's history. CICERO tells us that *in the Indies* after a man's death his wives were accus-

tomed to dispute who was his greatest favorite, and she who carried the question esteemed it a great honor and, without a moan, was burned on his funeral pile. The great army of martyrs were equally triumphant and to a better purpose. It is said that in one little hamlet fifty of the ALBIGENSES suffered themselves to be roasted alive rather than recant their opinions. POSSIDONIUS, being afflicted with a painful disease, POMPEIUS came to hear him discourse of philosophy. "The gods forbid" said POSSIDONIUS "that pain should ever have the power to hinder me from talking of it," and immediately made a discourse on the contempt of pain.

It is not contended for an instant that any force of the will or diversion of the imagination, can cause intense pain to cease. There can be no doubt, however, that it can be sensibly diminished and at times wholly forgotten. That quaint old essayist, MONTAIGNE, discoursing on pain, evidently entertained the same idea. "I will grant, and very willingly, that it is the worst misfortune of our being; but still it lies in us, if not to annihilate, at least to lessen it by patience; and though the body should mutiny, to maintain the soul and reason, nevertheless, in good temper."

In one of the magnificent plays of EURIPIDES, JASON is represented as taunting MEDEA with her sex, and reviling her because she never endured suffering for glory and never stood by the shield on the field of battle. To which MEDEA replies with great dignity, "I would rather stand thrice by the shield than bear the pangs of childbirth once." The pains of labor are confessedly very great. God himself has declared, what the daily observation of every physician corroborates, that the throes of maternity are terrible. Yet even these inevitable pains may be sensibly diminished, and at times almost quieted by the mental effort of the sufferer. In proof of this we have but to call to mind the Lacedæmonian women who

were accustomed to make nothing of child-birth. The wives of the Swiss soldiers, it is said, frequently trudge along after the army with a child, one day in utero, which the next, they carry on their backs. The squaws among our own Indians, and the gypsies of Europe, are wont to wash their offspring in the first stream, and then follow the trail of their companions. Very recently I visited a Canadian French woman in an alms-house, who had given birth to a child, the placenta however, being retained. This simple woman, not wishing to give trouble, shut herself up and bore the pains of labor from nine, A. M. to four, P. M., without a murmur or even disturbing persons in the next room, although separated by a thin partition only. I found her upon her hands and knees, holding the cord, which she had ruptured, between her thumb and finger to prevent hemorrhage. This person was full of the graceful vivacity of her race, and at last accounts "mother and child were doing well."

A simple boy of Lacedæmon had stolen a fox which he had concealed under his coat. Rather than discover his theft, he permitted the animal to tear out his bowels. LIVY tells the story of SCÆVOLA who entered PORSENNA's camp for the purpose of assassinating him. Being detected, he confessed the purpose, boasted that there were many Romans in his camp like himself, and to show what manner of men they were held his arm over a pan of coals, permitting it to roast until PORSENNA, in horror at the sight, ordered the fire removed. The classical scholar will remember that SENECA, although under the surgeon's knife, did not lay aside the book he was reading. These and similar facts show us conclusively, I think, that the intensity of pain depends largely on the mental condition of the patient.

I might bring forward a great array of facts to prove what we every day see, that pain may be intensified to the *erge of agony* by a determination on the part of our pa-

tients to make the worst of their condition. But this paper has already assumed formidable proportions.

It has been my object to show that, as great an evil as pain is, it serves us well in that it insures the preservation of the species, warns us of the invasion of disease, while its severity may be measurably increased or diminished in proportion as we are philosophic or petulent. "Remember," says CICERO, "that great pains are terminated by death, that small ones have many intermissions of repose, and that we are masters of the moderate sort; so that, if tolerable, we may bear them, if not, we can go out of life, as from a theater, where the entertainment does not please us."

PRACTICAL MEDICINE.

BY T. J. W. PRAY, M. D.

There is in every community much credulity as well as distrust as to the curative power of medicine. This distrust has destroyed the uniform respect which formerly was shown to the physician, and he is no longer looked upon as an object of veneration and believed to carry about with him hidden and recondite knowledge. The secrets which he was thought to possess have become better understood, and developed themselves into well known facts. The superstitious belief of the past has assumed new forms. There is in all probability as much credulity to-day as in any former age; but it exhibits itself in different aspects, and perhaps is not seen in the same degree on all occasions. It is more refined at one time or in one class of men than another; but it is hardly less in quantity. It is found always among persons of the same cast of thought, and doubtless will never be entirely banished from the world. There is nothing in the religious fanaticisms of the past more remarkable than the vagaries of Mormonism and Millerism of our day. The witchcraft and fortune telling of our fathers will find some defense along side of the extravagances of "Spirit rapping" of the present date.

Not only is the existence of credulity apparent in

almost every avenue of life, but it has also come into the precincts of the medical profession, and there is found a numerous class of followers to every pretension, running into extremes, and never into a medium course. Those who are wont to reason well and rightly upon almost every other subject will fall into the most erroneous opinions when they touch upon the confines of theory and practice. In anatomy, the laws of physiology, the application of the art of surgery, there is but little disagreement. All irregular systems have their ground-work upon the researches and extensive experience of the regular profession. Indeed, seven-eighths of what constitutes the education of a medical man of whatever grade or class, comes from them. It is through their investigation that anatomy has become an exact science; that the laws of physiology are better comprehended; that surgery has arrived to such perfection; that materia medica has had such valuable contributions; that the laws of hygiene are successfully followed. The opponents of the regular profession have done but little to advance true science. They may have modified, but have not created. They have acted as skirmishers on the out-posts of progress,—doing all they can to detract, but little to urge on their followers to higher culture. They may have successfully taught some truths but faintly seen, or poorly considered by the educated physician. They may have illustrated what has been too tardily learned, that the curative power of medicine has been too much trusted, and nature too much overlooked in the treatment of disease. They have demonstrated that one-ideaism in practice can never succeed; that the numerous class of medicines which Nature has given to mankind, scattered as they are on every hill-side and in every forest, were intended for man, and for the "healing of the nations"; that showy pretension will melt away before the sunlight of knowledge: and that learning and scientific research, will be sooner or later

acknowledged. No system of medicine can stand which is not founded on truth; and that which depends upon credulity for its growth is an unnatural plant and will die.

As physicians, therefore, let us not fear superstitious belief or the prevalence of empiricism. The most that they can do is temporarily to attract attention; or, it may be, annoy the scientific men. They should not turn him from truth. All have seen the positive assertions of Thompsonianism, and yet it has lost all the prestige it once had. Hydropathy has yielded to more agreeable modes of medication, and so little do other systems impress the passing hour that they will soon be entirely forgotten. To-day Homeopathy has its sway. It lays claims to some attention, inasmuch as it does not profess to depart materially from the regular system of practice. It uses the same medicine and adopts in most cases the same appliances. It differs only in the amount of medicine given. The votaries of this system no longer follow blindly the intangible theories of HAHNEMAN. They no longer cling to his infinitessimal doses, to the many subterfuges of trick and deception which his diseased mind advocated. Many of the modern homeopathists have abandoned the idea that certain unmeaning motions and triturations give efficacy to the medicinal draught. Some of their writers boldly assert that what is termed "heroic doses" should be resorted to when exigencies demand. Quantities of medicine of the most poisonous nature are recommended, that would make the conservative physician ponder before he committed such rashness. Their small, palatable pellets are used only when prophylactic treatment is demanded. It requires no great foresight to see that this kind of medication will cure three fourths of the ailments which a physician is called to treat; for a strict regard to diet would do the same.

In this state of things, with the spirit of credulity *abroad,* what is the duty of the practical physician? Our

answer is, first, that it is not prudent to say or write *too* much in regard to the prevalence of imposture. A celebrated writer observes, "many a popular error has flourished through the opposition of the learned"; and second, that if one can do aught to obstruct or check the pretensions of artifice or trick, it is a duty. Not that one should lend his talents to the same means of notoriety as the quack, nor should he give his reputation to deception. By no means, for this is not becoming in any one who wishes to maintain the integrity of an educated profession. His course should be nobler and higher. But if, in any way, he can do away with the prejudice and the objections that attach to the profession without impairing his standing, or in any way detracting from his sense of duty, then he should do so by all means, because by so acting he puts an end to the spread of error. Now in order to disarm this prejudice in almost every community against the regular profession, there are a few things which seem to me essential for the practical physician to notice. We shall note but a few of the many that could be named.

First, practical medicine suggests the expediency of adopting a more simple means of medication than is usually employed. This is requisite both from observation and experience. Often prescriptions are of a too complex character. They are not made up in a philosophical or logical manner. They depart but little from the path of the empiric; and it is often difficult to foretell how and in what manner various mixtures operate. The medicine is given and the patient gets well, perhaps not as a sequence of the given draught, but in spite of it. It is by no means requisite that every cough mixture shall contain half a dozen ingredients; that every diuretic should be composed of three or four mixtures of the same nature, and the same direction. It is well known that a chemical change occurs in the combination of different medicines, and a loss of power is occasioned. It is im-

possible to tell what changes occur in the union of the most simple remedies, when there is no external change noticed. A change of color must produce important results in the original ingredients. Of course we do not mean to forbid the use of all combinations, for no sane man would be so rash. There must be unions of medicine to check the otherwise hurtful effects of some excellent individual remedies; but we would say that if we wish to get the entire effect of medicines, our mixtures should be few. A simple medicine, administered alone, can be trusted; other resorts cannot.

In the next place, the practical physician should keep up with the improvements of the hour. Some of these may seem to be nothing but innovations, yet one cannot safely ignore them. The human race is not destitute of common sense, nor is man on being prostrated by disease deprived of his senses. It is well to remember this in the administration of remedies. What we mean is, that the day of nauseous and disagreeable compounds, and bitter and sickening draughts, however they may be deemed essential to the safety of the patient, is gone. There is a call for reform here, and the physician should, by all the ingenuity at his command, seek out some way whereby medicines should be more acceptable. There can be no doubt that the regular physician has lost *caste* and reputation in the minds of some by not selecting some more ageeable mode than is commonly used by which disagreeable remedies can be conveyed to the stomach. How often one finds those of nervous and sensitive organization thrown into paroxysms of excitement, the burning fever to increase in exacerbation, the flickering flame of life to become almost extinguished, and the sick one to be put back instead of forward in the progress to health, when the dread hour arrives to take the loathsome mixture. If the system is under the weight of prostration and the stomach revolts at the bare mention of food or

drink, it is not certainly the most refined or humane proceedure to fret or torment the patient with medicines in their natural form, when, by care and study, they can be made more palatable. The reason why homeopathy has acquired such importance and now lays hold of the popular prejudices in many communities, arises almost wholly from the pleasantness to the taste of its remedies. The homeopathist, paying but little regard to the theory of attenuations and infinite dilutions, dispenses the most concentrated and powerful remedies in the guise of some pleasant vehicle, and the satisfied invalid never dreams of the deception. His apparently harmless powders and almost tasteless pellets, at times, it may be, not strongly medicated, are sought after by persons of fastidious taste, and loved. The child, whose very nature detests the disgusting compound, turns away with avidity from the bitter to the sweet, and the purpose in many cases is effected. To-day sugar reigns, and our opinion is that its mild and beneficent sway should continue. If an *expectant* treatment is ever required, sugar pills are as potent as *bread* pills, and since the *vis medicatrix naturæ* will bring to health three-fourths of those sick without the aid of remedies, we see no reason why a crusade should be instituted to banish sugar from society. No, rather let it be used till further good shall come to mankind.

The sum of all this is; that physician who by happy combinations makes use of tasteless and pleasant nostrums, is on the road to do away with much of the superstition of our age, and the dislike to our remedies. His compounds will be sought after, to the exclusion of those which are given regardless of the caprices of society. "Sugar," remarked an intelligent physician to me a few months ago, "occupies a place in my medicine-case as much as Dover's powder. I cannot do without it. The times require it."

Again, there is one other subject that seems to require especial attention. There is no doubt that too much med-

icine is given. This is the fault of every practitioner, more or less. We act as if art did all, and nature nothing in modifying and curing disease. The sick-room has too many complicated mixtures. Often a miniature apothecary-shop is seen by the bedside of the sufferer, the phials nicely labelled and the directions minutely and carefully written out, as if the bare omission of a particle of medicine would be fatal to the patient. Now this reliance upon medicine, and distrust of the powers of nature cannot fail to be a source of the gravest doctrinal errors with practical results of the most deplorable character. The true mission of the physician is to assist, not obstruct by his interference, nature. The symptoms of disease, and the effects of treatment require nice discrimination to distinguish the results of each on the animal economy, and no doubt the want of consideration as to the extent of irritation which may be induced in the system by certain remedies, has led to much erroneous practice. Medicines by no means operate without harm upon the human system. They should, therefore, be judiciously used.

But let no one understand that we have no faith in medical treatment. No one can be a faithful observer of diseased action and not have seen special results and favorable therapeutical effects from the operation of remedies. We do not even recommend the resort to the expectant plan to be followed in all diseases. In many cases this will work well, but he who trusts to this mode of practice, will fall into inextricable difficulties. We have no doubt that some lives have been saved by not resorting to dangerous medication, but many have undoubtedly been destroyed by witholding from the system proper remedies which might have stayed the ravages of disease and restored to health. The plan laid down by Dr. STAHL is the most philosophical, and in consonance with observation. "True medical or artistic expectation," *says he, "is* that which, carefully observing and watching *the salutary* operations of nature, is content to do without

offering assistance when it is not needed, or limiting this assistance to giving prudent counsel, such as recommending to the sick temperance and patience; yet, in the proper place, recognizing not merely the propriety but the necessity of artificial interference and yielding it accordingly; still, however, in every case having due regard to the proceedings and co-operation of nature according to reason and approved experience."

We are to remember always that the tendency of diseased nature is towards health, that every effort of the system is to throw off the morbid poison coursing the veins; hence the first consideration of the medical man in his intercourse with the sick is to find out whether a remedy is needed and, if none, he should have the courage to thus act. He must ever keep in mind that he is dealing with human life, whose safety should never be put in jeopardy by a too free use of drugs and external irritating appliances. We are aware that it is often difficult for a physician to adopt a conservative practice, owing to the exaggerated estimate of the powers of medicine which prevails in the public mind. The prevalent belief is that medicine is the art of curing disease, while its proper vocation, considering its history and partial success, is to understand disease, curing or relieving it when possible. Perhaps medicine can never be practiced as it should be until the popular mind is better educated as to the proper sphere in which the physician should act. The extreme ignorance of the public generally, in every thing that pertains to the healing art, may modify our treatment but should never lead us to the adoption of improper means and remedies.

We have thrown out these few thoughts without regard to method. There is nothing new in them, but nevertheless it may be wise to re-consider old truths and to give them the place which they deserve. This is called for from our position in the community as an educated profession.

REPORT ON EPIDEMICS.

BY S. M. WHIPPLE, M. D.

FELLOWS:—The past year has been indeed a year for the prevalence of Epidemics. They have appeared, in many localities at least, in all their deceptive and malignant types, frustrating the skill of men and their confidence in the healing art. With so much severity has this epidemic influence prevailed, and laid prostrate so many of its victims, that some medical men have retired from the field of practice and of duty rather than meet and deal with the mortifying scourge; while others, after unsatisfactory trials of all the ordinary modes of treatment, now declare that the less there is done for the prevailing maladies the better. Let such rest assured, however, that these diseases, like weeds, flourish most when least attended to, and further, that the character of the medical adviser must be merged for the time in that of nurse also, to a certain extent, if his ministrations are to be successful and the reputation of the profession sustained.

The theory of epidemics perhaps is not well enough understood at the present time to enable physicians to practice and treat intelligibly the new and peculiar phenomena which the existing diseases present. It is not enough to know that one disease or another is prevailing *epidemically in* a given locality, striking down its victims, *in order to treat* that disease successfully; but it is neces-

sary also to know the various predisposing and exciting causes, as well as the various pathological appearances which are presented to our view. All epidemics, of whatever name or type, are ushered in with characteristics peculiar to themselves, and, in many instances at least, the unwary practitioner loses many of his cases before becoming aroused to the new phenomena.

But the generally accepted theory concerning epidemics is, in my opinion, erroneous. They do not depend for their severity or continuance upon the *constitutio aeris*, or constitution of the atmosphere, so much as upon the predisposing causes which lie inherent within the human system. Epidemics of a special character prevail only at long intervals. Do these depend upon some malarial influence of the atmosphere, or upon a depraved condition of the vital functions? In the normal state there is a constant disintegration and reproduction of cells, and an equable and reciprocal balance between the processes, constituting health in the economy. But if the supply of pabulum is diminished in quantity or altered in quality, this natural equilibrium is destroyed, and disease results as a necessary and natural consequence. If a habit be continued then by any one, or any number of persons, in a given locality for a series of years, which tends insidiously to destroy this natural equilibrium of assimilation, the fibrinous plasma ceases to be properly elaborated, the red globules decrease in quantity, the albuminous element becomes excessive, and a condition of disease is developed throughout the economy. Those who are victims to epidemic disease are in this condition, and however slight the exciting cause may be, whether from the atmosphere, irregularities, or from contagion, the most alarming and malignant diseases are ushered in. Aerial or malarial causes alone, without any of the predisposing tendencies inherent in the system, would affect all alike, and healthy tissue would become equally impressed with that of dis-

eased, which is contrary to the experience of all. The food for epidemics, therefore, is accumulating in the blood of its victims in different proportions, until one or a few in a given locality are seized with disease; then the malaria of contagion affords a sufficient exciting cause to ignite the latent spark in others of like condition, and the deadly malady spreads with unmitigated fury. The physician is puzzled at the new phenomena, and at its sudden appearance, and the people are appalled at the sight of its many victims.

From the light of the foregoing reflections we are led to the conclusion that all diseases, however sporadic they may be, are more or less epidemic in their predisposing causes. All diseases vary in intensity to correspond with the subjects of attack; and the same causes which will produce tubercles in one, will produce tabes, scarlatina, diphtheria, erysipelas, &c., in others. The present victims of tabes and diphtheria are only saved from the early ravages of tuberculosis, ascites, hydrothorax and all other diseases to which the human family are inclined.

If any thing, therefore, would tend to ameliorate the physical condition of the human family at the present day it would consist in teaching them how to live. As war is the rectifier of the human passions, so is disease, if properly understood, the great refining agent by which the human economy returns to its native purity. The great and never changing laws of our being are violated, or such a thing as disease could never be. At the present day but very little attention is given to the physiology of disease, or that diseased action which precedes a more or less violent attack. The predisposing causes are at work for months and years, gradually, but insidiously changing the blood from its rich and formative material to that where the cell-germs become deficient, the function of assimilation is interrupted, and some local disease develops itself *in the system*. At this late date of sorrow and suffering,

when nature has taken the matter into her own hands to dispose of, the physician is summoned to her aid. No one seems to take alarm until the awful precipice is reached and the plunge is made, when the physician is puzzled for the means of rescue, and Divine Providence is supplicated to reverse his laws and give, as it would seem, a new lease for sin..

The only intelligent view to be had in our survey of epidemic causes, then, lies farther back than the period of the acute attack. The pathology of diseased structure should not be confined wholly to post-mortem appearances, nor during the continuance of any febrile or inflammatory disease, but to a period anterior to all these. I refer to that period when we may see disease dawning upon the brow of those who subsequently succumb to some violent epidemic. At that time, when constant use of improper aliment is made; when enervation ensues, with emaciation, torpor and depression of spirits, and when the nervous system feels most sensibly the withdrawal of all appropriate material for healthy nervous action; this period, in my judgment, is the one which should claim more attention than at present from our profession; and, until some more efficient regulations are adopted to prevent disease, our adopted Yankee race in America will go on to degenerate until disease and death are the rule, and health and long life the exceptions.

But the physiological characteristics of those who become the victims of epidemic disease, frequently go farther back than the mere short life of the individuals thus exposed. The contamination of the blood, and the feebleness of the recuperative functions, are a part and parcel of the new being; consequently we must have in view, in the dispensing of dietetics and hygiene, many generations subsequent to that which is within our own field of labor. Many, if not all diseases, are transmitted

from one generation to another in all of their predisposing causes; and if, in every subsequent generation, the corruption should exceed the incorruption, then we could expect nothing less in every following generation but the increase of those elements which are conducive to disease, and a corresponding decrease of those vital portions which are so necessary to sound health. This theory is sustained not only by facts as they are derived from statistics, but from the experience of all; and the sooner the medical profession become aroused to its full realization and act accordingly, the more conducive will their services become to the elevation of our race. To know ourselves and those laws which must regulate and govern our physical being, is exclusively the province of the physician. And shall these guardians of health and of human progress become sentinels heedless of the approach of that foe whose sting is death, or to the violation of those physical laws whose punishment is sure?

> "Know then thyself, presume not God to scan,
> The proper study of mankind is man."

With a full conviction of the truthfulness of the preceding principles, we are led of the conclusion that all epidemics are more or less contagious. This, to be made more plain, should, perhaps, be considered more in detail.

There are some diseases, like rubeola, cynanche parotidæa and some others, which are pre-eminently contagious. In such there seems to be an element of contagion peculiar to itself, and which will spread only by contact; and no one, for once, is precluded from its effects. Every person is liable to an attack of measles in case he should be exposed to the contagion. Here, then, is a natural habit pertaining to every one, and nothing but the renovating properties of the disease can preclude him from such liability. The different degrees of severity depend wholly upon an acquired habit of some which does not *exist in others.*

Other epidemic diseases do not follow this law of universality, but depend entirely upon an acquired disposition of the economy for their contagion. To this class belong scarlatina, influenza, erysipelas, and many others. The habit for this contagion, of course, may be in part and perhaps wholly, (in tabes, hydrocephalus, &c.), transmitted. These diseases, unlike the former class, frequently have a spontaneous beginning, without any known contagion. Such a disease always commences with the greatest severity, destroying at the outset many of its victims, and will leave a locality with foot-prints which will hardly attract our notice; while the other class will leave a locality with the same severity with which it entered. This decline of severity is due wholly to a lack of element in the system to supply food for the given epidemic to consume. Like the flame in the sere and dry grass, it gradually goes out as the element on which it preys insidiously disappears.

The different diseases which have assumed, the past season, more or less of an epidemic character, are influenza, diphtheritis, and scarlatina; all others have assumed, generally, the sporadic type. The almost annual and autumnal epidemic, influenza, has been the guest of many localities the present season. It was accompanied with no new symptoms, and, to my knowledge, was bereft of no usual appendages.

On the contrary, we find diphtheria of much more recent date, as also much more malignant in its character. Unless we consider the common isthmitis a more simple form of diphtheria, this latter disease is of very recent date in this State and vicinity. My opinion however is that this disease and the common inflammatory sore throat are two very distinct diseases; so much so that the latter can never be considered as premonitory of the former. From our own observations we derive one very strong evidence of the truth of this *proposition*. For those persons who

are most liable to cynanche and are the greatest sufferers from it, we do not find, in our practice, to become the subjects of diphtheria. But, on the contrary, do not the two diseases depend upon two entirely different conditions of the human economy; the former, diphtheria, upon an anæmic condition, and the latter upon an hyporæmic state? At least it may be safe to say that all persons, in whatever condition of health they may be, are liable, with a sufficiently exciting cause, to an attack of sore throat, while, on the contrary, but very few comparatively, can have diphtheria.

Of all epidemics at the present day, for extent and severity, this disease stands pre-eminent. The hidden material on which this fell destroyer preys has been accumulating in the blood of many a fair and worthy child and youth in this our fine, but rugged New England for years. It seems to supplant, and excell in severity all other epidemics; and, in my opinion, it will leave a district only to return to afflict a new class of subjects, ripened for its malignant grasp. The frequency and malignancy of scarlatina has been suspended to give place to this scourge of the present age; and it would seem that all epidemics were ready to evacuate at its approach. It is, indeed, "*Magni nominis umbra.*"

If this theory of epidemics is correct, it very naturally suggests two general modes of treatment, that of direct attack, and the cutting off of supplies. The former will include medication, or all kinds of medicine which are or may be used; and the latter will include prophylactics and dietetics.

It is a remarkable fact that at the breaking out of any given epidemic, it is attended with greater malignancy than at its close. And this is popularly ascribed to a lack of knowledge on the part of the medical faculty at the outset, and its exit to an increase of knowledge by repeated trial and experiment. But this popular idea, as

usual, is not correct, when applied to medical subjects. The diagnosis, pathology and treatment of diphtheria, or any other of the various epidemics, was as well understood at their outset, and they were as well treated as at the present time. This depends more upon the type of the disease than upon the treatment; and the type is modified by the amount of aliment, or impure blood, that is found in the vital economy. This accounts for the various types, or degrees of severity, which epidemics assume at different times of their prevalence, some years sweeping down hundreds of victims, while at other times but few are held by its fatal grasp. The longer intervening time between the recurrence of an epidemic, probably constitutes the degree of severity, as it affords a longer time for the operation of the predisposing causes. But very little can be done to remove these predisposing causes after an epidemic has once fairly set in. This is the period for medication, and for the removal of all existing causes, such as contagion, malarial influence, &c., as far as may be discovered. And what is done in this way and at this period by the faithful physician, results more to the correcting of bad habits and influences in the community at large, and thus preventing disease, than any direct applications which may be made to the patient. Epidemics are more or less periodical in their nature, and are bound to run a certain course. Medicines, therefore, cannot cure such diseases, however skillfully and methodically they may be applied. They can only mitigate suffering and direct to a favorable issue. Drugs, in proper quantities, produce an effect upon the human organism, whether beneficially or otherwise, but it is very doubtful whether the assimilative powers of the system are ever adequate to the task of producing healthy cell-germs from any nutrient element contained in a single drug. If, at any time, the red globules of the blood are becoming deficient in quantity or

bad in quality, then we are led to the conclusion that the function of assimilation is interrupted, and a condition of disease is developing itself in the system. The powers of digestion are becoming so much impaired that the tissues do not receive their due supply of organizable pabulum, and, of course, the stomach is failing to perform its healthy functions. Here we resort to the various kinds of tonics and chalybeates, under a mistaken notion, I believe, that the debilitated stomach, failing to digest beefsteak and potatoes, can digest bark and iron.

Here is suggested our second course of treatment, that of dietetics and prophylactics. The use of the various articles of healthy food constitutes health, other things being equal, while their abuse constitutes or tends to, disease. Says DUNGLISON, "a well regulated system of diet has great power in checking disease, and likewise in producing it. And a proper knowledge of dietetics is indeed as important as that of materia medica." This extract contains the only rational system of preventives; prophylactic drugs I consider a misnomer. For if our natures are once ripe for disease, disease is inevitable, either general or local; and as the wise statesman occupies the time of peace to prepare for war, and as the skillful mariner is on the alert during a calm to prepare for the storm, so should we, at every interim of epidemic disease, continue to lay before the mass of the people the most approved rules of dietetics and hygiene. This course, if it does not wholly prevent disease, will surely disarm it of many of its terrors and dangers, and serve to elevate our profession to that position which is honorable and benevolent, as well as to that which is useful. This course also, in a military sense, would operate to cut off supplies, and hence to starve out disease, and thereby change a condition of accumulating diseases to that of returning health and vigor.

Dr. SPENSER, in his Fairy Queen, speaks admirably to *young people* under this tendency to epidemic disease.

"The best," said he, "that I can you advise,
Is to avoid the occasion of the ill;
For when the cause, whence evil doth arise,
Removed is, the effect surceaseth still.
Abstain from pleasure, and restrain your will,
Subdue desire, and bridle loose delight;
Use scanty diet, and forbear your fill;
Shun secresy, and talk in open sight,
So shall you soon repair your present evil plight."

Finally, in closing this report, I very much regret to find so much discrepancy of opinion among the members of this Society as regards the contagiousness of the present prevailing epidemic, diphtheria. This may seem at first thought of but little consequence to us, or even to any one; but, on points where medical authors generally, as well as the great mass of the people, agree, it would seem indeed puerile for members of this Society to take direct and even opposite grounds. I can see no more objections to placing contagion among the exciting causes of diphtheria than I can among the causes of typhus, scarlatina, &c., on which, I believe, all agree. Because all are not susceptible to a certain contagion is no argument that none are liable to it. A person may escape a certain epidemic this year, and a few years hence fall a victim to the same malady. This depends entirely upon what the acquired susceptibility may be at the several periods when the disease prevails. And, as such a habit pertains to any number of persons at any time, and in different degrees, to that extent only is the epidemic considered contagious. A small quantity of yeast thrown into a cup of pure water produces no chemical effect; it dies off of itself. But if the same quantity be put into a cup of sugar and water the effect is quite different; fermentation sooner or later takes place. The blood, therefore, in the normal state, is not susceptible to any impression by contact with diphtheria virus; while in the abnormal condition the same virus will produce fermentative changes incompatible with health and, in many instances, with life itself.

This view of the subject, if nothing more, would relieve us from the slander of cupidity in giving our several opinions; and for this reason alone, it is worthy to be adopted as one of our rules of ethics. For the greatest success in any undertaking is reached only where there is the greatest harmony of opinion, union of sentiment, and vigor of action among its individual adherents.

By all we in the past have been,
By all that we may hope,
Where in the future lies unseen
Our Society's horoscope;
No efforts spare, no zeal abate,
Lest come those words, "too late, too late."

THE

TRANSACTIONS

OF THE

NEW HAMPSHIRE MEDICAL SOCIETY,

(Seventy-Seventh and Seventy-Eighth Anniversaries,)

HELD AT

MANCHESTER, JUNE 4, 5, 1867; AND JUNE 2, 3, 1868.

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PROCEEDINGS.

TUESDAY, June 4, 1867.

THE Seventy-Seventh Annual Meeting of the New Hampshire Medical Society was held at Manchester, on Tuesday and Wednesday, June 4 and 5, 1867.

The Society was called to order by the President, Dr. R. P. J. TENNEY of Pittsfield.

The following committees were appointed by the Chair: —

Committee to examine Credentials of Delegates from other State Medical Societies, and introduce them to the Society — Drs. Thomas Wheat and Levi G. Hill.

Committee to examine Patients — Drs. Josiah Crosby, Wm. D. Buck, and L. G. Hill.

Committee to audit Treasurer's Account — Drs. Simpson and Gould.

The Council recommended the following named gentlemen, who were thereupon elected members of the Society:

EDGAR L. CARR, M. D., Candia.
GILLIAM C. PERHUM, M. D., New Boston.
DAVID L. CLARK, M. D., Derry.
HANSON C. CANNEY, M. D., Auburn.
CHARLES S. BOYNTON, M. D., Manchester.
RICHARD J. P. GOODWIN, M. D., Manchester.
HIRAM W. TEBBETTS, M. D., Concord.
SAMUEL B. KELLEY, M. D., Franklin.
ISAAC N. PERLEY, M. D., Lebanon.
JAMES A. DAVIS, M. D., Lebanon.
PHILIP J. C. W. GOLDING, M. D., Londonderry.

Drs. J. B. WHITCOMB of Connecticut, A. BALLOU of Rhode Island, and H. C. GRAY of New York, were introduced to the Society, being delegates from other State Medical Societies.

Delegates to Dartmouth College read their report, and it was voted to place it in the archives of the Society.

Dr. CARR presented to the Society a splint for the treatment of fracture of lower end of the radius.

Dr. A. B. CROSBY read his report as Committee on Surgery, which was accepted, and referred to Committee on Publication.

Voted, That the next Annual Meeting be held at Manchester, upon the first Tuesday of June, 1868, at 10 o'clock, A.M.

Voted, To adjourn to 8 o'clock in the evening.

EVENING SESSION.

Dr. R. P. J. TENNEY of Pittsfield, President of the Society, read the Annual Address.

Voted, That the thanks of the Society be presented to the President for his able address, and that it be referred to the Committee on Publication.

Drs. A. B. CROSBY, E. K. WEBSTER, and ALBERT SMITH were appointed a committee to write a memorial on the death of Dr. MUZZEY;

Drs. WATERHOUSE, SIMPSON, and CALL, a committee on death of Dr. N. G. PARKER of Farmington, N. H.

The evening was spent in various discussions by members and delegates, until 11 o'clock, when the Society adjourned to meet at 8 o'clock on Wednesday.

MORNING SESSION.

Opened by reading of a case by the President, Dr. ROBINSON.

The following officers were elected for the ensuing year: —

PRESIDENT.

A. H. ROBINSON, M. D., Concord.

VICE-PRESIDENT.

N. W. OLIVER, M. D., Portsmouth.

SECRETARY.

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THOMAS WHEAT, M. D., Manchester.

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Albert Smith, Peterborough.	H. B. Eaton, Epping.
Thomas Marshall, Mason.	L. C. Bean, Lebanon.

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T. H. Currie,	R. Thompson,
R. W. Price,	W. Darling,
L. P. Dodge,	G. Montgomery.

DELEGATES TO DARTMOUTH COLLEGE.

C. F. Hildreth,	J. N. Wheeler.

DELEGATES.

To Massachusetts — Wm. D. Buck, True M. Gould.
To Rhode Island — Albert Smith, A. B. Crosby.

To Connecticut—C. F. P. Hildreth, N. Call.

To New York—C. P. Gage, J. F. Hall.

To Vermont—L. W. Peabody, G. P. Conn.

To Maine—J. H. Brown, William Leighton.

To American Medical Association—G. B. Twitchell, J. C. Eastman, C. F. P. Hildreth, C. P. Gage, A. Smalley, A. B. Crosby, P. A. Stackpole, Wm. D. Buck, T. H. Currie, C. H. Boynton, W. H. H. Mason, J. F. Hall, Leonard French.

COMMITTEES.

On Surgery—L. M. Knight, Franklin.

On Practical Medicine—L. Peabody, Epsom.

On Diseases of Females—G. B. Twitchell, Keene.

On Publication—G. A. Crosby, Thomas Wheat.

On Arrangements—Wm. D. Buck, Leonard French, and W. W. Brown, of Manchester.

The report of the Treasurer was read, and explanations made in regard to the Bartlett Fund; and, on motion, the report was accepted.

On motion of Dr. WHIPPLE, the initiation fee was placed at $5, and annual fee $4, after considerable discussion.

Drs. BUCK, HOW, and WHEAT were appointed a committee on revision of the By-Laws.

Resolved, That the Society have learned with regret of the death of N. C. PARKER, M. D., of Farmington, a member of this Society, under circumstances unusually painful; and we tender to the friends of the deceased our warm sympathy.

Preamble and resolutions of Dr. S. M. WHIPPLE of New London, concerning giving opinions in cases of alleged malpractice, was laid upon the table.

On motion of Dr. WEBSTER, adjourned to meet at same place upon the first Tuesday of June, 1868.

GEORGE A. CROSBY, *Secretary*.

ANNUAL ADDRESS.

BY R. P. J. TENNEY, PRESIDENT.

GENTLEMEN,—

Another anniversary of the New Hampshire Medical Society has brought us together. I hail the members present with fraternal greeting. Delegates from other medical societies are most cordially received and kindly solicited.

The annual gatherings of this Society are really professional communions, most admirably adapted to the wants of individual members, and well calculated to inspire them with new zeal, energy, and devotion; and to promote harmony, kindness, and brotherly love in the ranks of our noble profession.

I am rejoiced to see so many here to participate in the exercises of the seventy-seventh anniversary of this ancient and honorable society. As members of a common brotherhood, we are here amid mutual and kindly salutations and congratulations; and, for the time being, sustain social, as well as professional, relations to each other.

The study of the human body has engrossed the attention of medical men from the days of Æsculapius until the present time. The best, the greatest, and the most brilliant minds in the past have been, and are now, devoted to the study of the human body, the better to understand its condition in health, and the more successfully to relieve sufferings occasioned by disease.

The philanthropic man finds an exceeding great reward

in the success which attends his efforts to ameliorate the condition of mankind.

As every human body is endowed with mental faculties, it requires mind and matter to constitute a human body.

Mind is the subject I have selected for consideration on this occasion.

Man was created in the image of God, but little lower than the angels, and is destined to an endless existence. The body, as the sacred writer says, "is fearfully and wonderfully made"; and yet it is subject to disease and death. The mind, although sometimes disordered, never dies. It lives through the lapse of time, and will continue to live through eternal ages, because it is immortal.

I shall speak of mind, soul, and spirit as synonymous terms.

Mind is the controlling agent of the body. The mind is active,—the body is passive; the mind acts directly upon the body,—the body only reacts upon the soul. I think it is philosophically accurate to say, the mind is the man. It is the living mind that distinguishes man from all other beings. The mind or soul is indestructible, and consequently cannot be annihilated. It is the living mind that animates and vivifies the complicated mechanism that we call the human body. In my definition of the mind, I shall not attempt to explain the nature or essence of the mind, but confine my statements to its phenomena. The first and most important phenomenon of the mind presented to our view, and which so much excites our wonder and admiration, is the unseen communication which is carried on between the perceiving, thinking, and active principle within us, and the material objects without. There is a very mysterious and hidden influence which the will possesses over the members of the body, which all will admit, whether we fully and clearly understand the nature of the communication or not.

A healthy, well-balanced mind is so essential to the health of the body that the physician should ever remember that his patients are composed of mind and matter; and, in his examinations, he should never overlook nor disregard any peculiar manifestations of the mind. He should examine the mental as well as the physical organization of those for whom he is called to prescribe. To arrive at just and satisfactory conclusions, he must investigate the facts, or the relations of the phenomena respecting the operations of the mental faculties, and with regard to the intercourse which the mind carries on with external objects.

The mind has been endowed by its Creator with a power of perceiving external things; but the *modus operandi* is entirely beyond our comprehension. The term "mind" is a name which we apply to a certain combination of functions that enables us to think, reason, and will. It is a power within us which is unlike and distinct from any function of the body. It is the principle by which man joys and sorrows, by which he is inspired with enthusiasm, excited with hatred, or depressed with the horrors of despair, and miserable forebodings of what he may never realize. These changes are not always dependent upon the condition of the body, or upon impressions from without; for we frequently see peace and happiness of mind enjoyed by those persons who are suffering severe bodily pain.

We also see great mental agitation and suffering in the most quiet state of every organic function. We are acquainted with mind and matter by certain properties; properties which are distinct and peculiar to each other, — apparent and well-defined, as long as our attention is confined to facts. Many theories of the nature of mind are on record which are mere speculations, and only amuse the reader on account of their absurdity. That the soul is immaterial and immortal cannot be doubted by any rational human being. Whatever the nature or essence of the

mind may be, and whatever may be the nature and extent of the mysterious connection between mind and body, no one can doubt the future existence of the soul. The soul and body are so intimately connected that every emotion of the mind has an effect upon the body; and, when causes from without have an undue influence on the body, it is the imperative duty of the physician to treat the case in reference to the mental derangement. The success of a physician depends very much upon his knowledge of the mental constitution of his patient. The more he cultivates and improves his own mind, the better he will understand the relative health of mind and body of those who confide in his opinion and follow his advice. In my opinion, the physician of the highest mental culture, other things being equal, will be the most successful practitioner of medicine, and the brightest ornament of a profession which every member should strive to adorn and dignify. His prescriptions will be more effectual, and his advice will be more carefully observed, because his manner of making examination will inspire his patients with confidence in his skill and ability to discriminate disease, and apply the proper remedies. The physician who cannot command the confidence and respect of his patients made a mistake when he entered the medical profession, which he cannot rectify by changing his place of residence.

We obtain our knowledge of mind and matter by certain properties which sustain a definite relation to each other; and a study of facts in regard to these properties is all that can benefit the student in mental or natural philosophy. He who, upon insufficient data, attempts to explain the nature of the mind, and account for its mysterious operations, is a presumptuous impostor. He is an enemy to mankind, whatever his pretensions may be. There are so many curious and credulous people that the most extravagant assurances of good, even from the ignorant mounte-

bank, will be eagerly received. Hence the importance and necessity of correct instruction in every department of science and literature. In the cultivation of the mind, an erroneous or fallacious system of education will do much more harm than good, because an individual mind educated on false premises will have a disastrous influence on others, and the effect will be seen and felt far and wide. We know from observation that error spreads much faster than truth, and he who assumes the position of an instructor should himself be correctly, thoroughly, and expansively educated. A correct and judicious cultivation of the mind enables us to preserve a proper and salutary balance of all its various faculties, principles, and capacities.

In order to maintain the relative position of all the faculties of the mind in the greatest perfection, it is necessary that each receives a due share of attention.

Daniel Webster fully appreciated the importance of mental cultivation, as may be seen by the following quotation. He says: "If we work upon marble, it will perish; if we work upon brass, time will efface it; if we rear temples, they will crumble into dust; but, if we work upon our immortal minds, — if we endue them with principles, with the just fear of God and our fellow-men, — we engrave on these tablets something which will brighten to all eternity."

Every intelligent person will say amen to this beautiful sentiment of the great statesman. The immortal mind is so susceptible of impressions, and so easily influenced by those who assume the responsible business of teaching, whether in the school-room, office, or sacred desk, that it is of the utmost importance for them to be established on the principles alluded to in the above quotation.

A clear, comprehensive, and intelligent opinion should be formed and entertained, by every teacher, of the intellectual capacity and wants of those who are intrusted to his charge. If any one faculty receives too much attention,

the mind loses its equilibrium, and a troublesome fanatic may be the result of ill-directed educational efforts. By cultivating and educating all the mental faculties, in such a way as to develop the greatest perfection of mind, the best security is given against the inception of the various "isms" of the day, which now distract and destroy so many brilliant intellects. By partial and injudicious mental cultivation, the laws of relation are changed, and the student is pursuing one object, or one branch of study, to the neglect of all others, and to the injury of himself and the public. Educated men with well-balanced minds are much less likely to forsake the old and legitimate paths of science and learning, and attempt to astonish the world with new theories of cause and effect.

The medical student, whose mind is well balanced by correct discipline, is prepared to gather knowledge and obtain information from every source within his reach.

He must labor assiduously with his own reason, and not rely upon reading the opinions of others, without exercising his own judgment in examining, comparing, and judging upon the best evidence he can acquire or command. He will obtain truths from all sources within his reach, arrange and compare the same in such a manner as to be available in future time. The more extensive his medical researches are, the more he familiarizes himself with the great acknowledged authorities of the profession, the more certainly will he master the ever-changing difficulties of his daily practice, and reach the goal of his ambition.

I have divided my subject into two parts; namely, —

First, What is mind?

Second, Where is the mind located?

To my first question, — What is mind? —

I answer, it is the immaterial, immortal, incomprehensible spirit of man, and is synonymous with soul. It has no

proportions, and yet it may have large dimensions; it has no form, and yet it may have great volume; it cannot be seen, and yet it may be keenly felt; it cannot be measured, and yet its measure may be infinite; it has no tangible properties, but its phenomena are apparent and positive. It is the motive-power of humanity, and it is the mainspring to human thought and human action.

Mind is the combination of faculties which compose the spirit of man. The mind is that part of our being which thinks, judges, invents, plans, remembers, discriminates, understands, reasons, and wills. A man's mind is his spirit. The essential parts of mind are the *understanding* and the *will*. The mind, or the understanding and will, in a complex sense, put into action the body and all its parts at pleasure. The body does whatever the mind thinks and wills. The mind directs the ears to hear, and the eye to see. The mind moves the tongue and lips to speak; it causes the hands and fingers to do whatever it pleases; it causes the feet to walk whither it will. *Understanding* is a word of Saxon origin, and is that faculty which enables one to describe any familiar operation of the mind in forming distinct ideas of things, and of readily perceiving and comprehending truth. The word "intellect," from the Latin *intelligo*, to understand, is a synonym of the word "understanding," and a modified, intensified application of the metaphysical meaning involved in the word "understanding." It is the opinion of rhetoricians that no two words, apparently synonymous, have exactly the same meaning. The word "intellect" is employed to mark the same mental operations with regard to higher and more abstruse truths than the word "understanding." The intellect is the understanding in a state of action while engaged in the discovery of abstract and hidden truths. Children have understanding, men have intellect. The child uses his understanding to distinguish the dimensions of objects, or to apply right

names to objects that may come under his observation. An ordinary understanding can easily perceive and comprehend the propositions, "The fire burns," "Water runs"; but it requires an operation of the intellect to comprehend the truth of the proposition, "Any two angles of a triangle are less than two right angles." The word "understanding" is a passive word; it simply admits or perceives the truth. The intellect acts, conceives, works, plans, invents, and discovers. Newton's intellect, not his understanding, led to the discovery of the laws of gravitation. Intellect is a matured state of the understanding. The researches of discriminating minds, in conceiving, planning, and developing important truths and principles to enlighten and elevate humanity, are the emanations of lofty conceptions, and a highly cultivated and well-disciplined intellect. Men, in public estimation, are distinguished from one another, in the professions and vocations of life, by the measure of their intellectual capacities.

Wilkins, an English philologist, defines the understanding "to be that faculty of the mind whereby we are enabled to apprehend the objects of knowledge, generals as well as particulars, absent things as well as present, and to judge of their truth and falsehood, good or evil."

The *will* is that faculty of the mind by which one purposes, determines, and decides to do or act, or refrains from doing or acting. The will is the seat of the affections, passion, love, and kindness. Judgment and comparison emanate from the will. The will is that agent by which the inmost qualities of the mind are directed. It is the propelling force of mentality. The will governs every faculty, and is the controlling organ of expression for every want, desire, and aspiration of the mind. The will holds the same relation to the individual that steam does to the engine.

The magnetic powers of the mind generate a vital force,

which, operating through the wonderful mental mechanism, produces what may be denominated *will-power*. A strong, vigorous, well-directed will is the crowning use of man's individuality. The understanding opens a world of objective realities to the inmost spirit; but the *will* determines and directs the course of every faculty.

See how the faithful physician works, — labors to go his daily round, to reach his patients, to administer what may be necessary to comfort, and a speedy restoration to health. He encounters storm and sunshine, wet and dry, cold and heat. No obstacle is too great for him to surmount; he will descend precipices, cross ravines, swim large rivers, and scale mountains, if need be. This is accomplished by the energy of the will.

This energetic, intrepid spirit of the doctor of medicine is the same that is developed in the national and individual enterprises of the world, — the tunnelling of the Alps; the wire bridge across the Niagara; the building of railroads, and crossing the deep chasms with bridges several hundred feet high for the iron horse to traverse; the invention and construction of our Monitors to fight the battles of the sea, and then encountering with these huge leviathans, and conquering a formidable enemy. What a determined spirit pervaded the breasts of our heroes in our late civil war, and led them on to certain victory!

That greatest work of ancient or modern times — a work which leaves time, as indicated by the sun's course, lazily behind, and, as it were, blots the ocean from the map of the world, and brings the two hemispheres so closely together that we talk with Europe, Asia, and Africa, as man talketh with man — is the very best example of perseverance and tenacious adherence to a purpose, which most significantly proves the power and elasticity of the will. In the accomplishment of his great work, the Atlantic Telegraph, the persistent will of Cyrus W. Field surmounted

the greatest difficulties, and turned the disappointment and failure of years into a final magnificent triumph. What a striking and impressive exhibition of *will-energy!*

What has been said sufficiently illustrates the importance of rightly understanding and properly educating the functions of the will.

Permit me to add the following practical remarks on this part of our subject.

There may be a *good* will and a *bad* understanding.

The purposes of the will may be based on the strict principles of rectitude. A bad understanding may result from a want of knowledge of what may be presented to the mind, in consequence of imperfect education.

There may, also, be a bad will and good understanding.

The will may be vicious, and disinclined to do right. The understanding may have just conceptions of what is right, and inwardly approve it too.

Physiologically viewed, the physician has much to do with the will-power of his patients. Confidence in physicians and medical prescriptions have a powerful influence in the recovery of the sick.

Second, To my second question, — Where is the mind located? —

I answer, the brain is the home or dwelling-place of the mind or soul, and the seat of the affections and of sensation and thought. Through this organism all our moral, intellectual, and physical powers are manifested. By this all our actions are impelled. From sense itself, when man is absorbed in thought and thinks earnestly, he perceives that he thinks in the brain; he indraws his eyesight, and recognizes an inward train of thought in the forehead, extending perhaps somewhat above it.

When the brain is vigorous, the mind acts with energy. When the brain is diseased, it acts irregularly, has unnatu-

ral thoughts and false ideas; mental emotions become perverted, and the mind itself is deranged. Whenever the cranium is fractured, or blows are received on the head, the brain is injured by the shock, mind and body sympathize with it. Though one's health may in a measure be restored, still it may prove a life-long injury, and perhaps shorten life. Sameranz, a French physician, says that the soul exists in the brain; consequently the agonies endured in cases of decapitation must be frightful. While the body lives, the mind is inseparably connected with the brain, and is subordinate in its action to this organ. If the brain is torpid, the mind is in the same condition; when this organ is weary, the mind needs rest. To demonstrate the truth that mind exists in the brain, and that the vital action of this organ controls all sensation, let me relate an anecdote appropriate to the case: —

Dr. Hayward tells the story of a beggar in Paris who, by accident, had lost a part of his skull; the brain was slightly covered by its membrane. This unfortunate mendicant was accustomed to allow any one, for a small sum of money, to press his fingers gently on this exposed part. While the pressure was being made, the mendicant was wholly unconscious of what was transpiring around him, or where he was; but, as soon as the pressure was withdrawn, consciousness returned, thus satisfying us that the brain is the seat of the mind, denoted by intermediate sensation.

The brain is not only the seat of intelligence, but also, in a healthy state, may grow and expand with liberty to expand, and may both augment its capacity in size and in intellectual power.

The principal function of the brain, particularly the cerebrum, is that it is the organ of thought or of the mind.

That the brain is the organ of thought, and that this is the function of the brain, pressure upon the brain and injuries of the head furnish most conclusive evidence.

Dr. Chapman, of Philadelphia, relates an instance of an exposed brain, which, by pressure, produced instant insensibility; but, the instant pressure was withdrawn, the patient recovered his faculties.

A man by the name of Jones was wounded in the head while on board of a vessel in the Mediterranean. Says Sir Astley Cooper: "The wounded man was transmitted to Gibraltar, where he remained in a state of insensibility for several months. He was ultimately conveyed to St. Thomas Hospital, London. Dr. Cline, the attending surgeon, found a portion of the skull depressed, which he removed by trepanning. Three hours after this operation, he sat up in bed; sensation and volition returned; and in a few days he was able to get up and converse. The last thing he remembered was the capture of a prize in the Mediterranean thirteen months before.

An interesting case of this kind was reported by Dr. Pieguin, observed by him in the hospital at Montpelier. The patient was a female, who had lost a large portion of skull and dura mater, so that a corresponding portion of the brain was open to inspection. When she was in a dreamless sleep, her brain was motionless and lay in the cranium. When her sleep was imperfect, and she was agitated by dreams, her brain moved and protruded without the cranium. In vivid dreams, reported as such by herself, the protrusion was considerable: when she was perfectly awake, especially if engaged in active thought or sprightly conversation, the protrusion was still greater. If the mind was not intimately connected with the brain, these phenomena would never present themselves.

We therefore infer that the brain is the only avenue which the mind has to the outward world.

The immortal mind, the spirit or soul, is usually something very different from the physical brain.

As the eye is the organ of sight, and the ear the organ

of hearing, so the brain is the organ of perception, affection, and intellectual action.

The eye is not sight, though there is not sight without it. The ear is not hearing, though there is not hearing without the ear.

So the brain is not the mind; still there can be no mental operation without it.

Whenever the brain is weary, the mind is weary. Whenever the brain needs sleep and rest, the mind requires relaxation and repose. These relations show that the brain is the seat of the mind. If thought and human intelligence emanate from the mind, mind must be the immortal part of man.

Whatever excites the brain, excites the mind.

The general divisions of the brain are the cerebrum and the cerebellum. The cerebrum is composed of innumerable fibres, originating in little lobules or small glands. In an active or wakeful state, while transacting the business of life and performing its active duties, when the cerebral organs are in a healthy condition, these fibres are erect, and contribute their influence to execute certain functions of the brain with uncompromising promptness. In the course of regular business daylight and the irradiating and powerful influence of the sun energize, and give animation to, these faithful and ever-vigilant sentinels; but, when sleep predominates, a state of insensibility obtains. The cause of this insensibility is, there is a collapse of the fibres of the cerebrum, to give rest to mind and body; by this condition the blood is prevented from entering the finer channels of the brain, but courses along the pia mater.

The vertebral and carotid arteries, which supply blood to the brain, have a peculiarly erratic course, more so than any other arterial trunks. Whatever, therefore, induces a change in the fibres and cortical glands of the cerebrum, changes the state of its automatic action, and consequently produces either somnolency or wakefulness.

How wonderfully is the divine economy displayed in this arrangement, in allowing rest to the cerebrum after the exhausting labors of the day!

During wakefulness, both the cerebrum and cerebellum are in a state of activity. Of the action of the cerebrum we are fully conscious, so that our mind bears rule in the animal economy, and sensory nerves convey to the sensorium the various impressions made by outward objects: but, when sleep seals up the eyelids, the activity of the cerebrum ceases; hence we become insensible to external objects. Sleep is the counterpart of action. At this period of time, the involuntary portion of our nervous centre, the cerebellum, with its attachments, has the entire control of the animal kingdom; here the mind finds a retreat in the back part of the head. The cerebellum is the dormitory of the soul, and, like a faithful sentinel, is the guardian of the night.

The manner in which this subject has been discussed gives satisfactory evidence that the brain is the seat of the mind, and that mind is the soul or spirit of man; being that part which will survive humanity, and adore the great Author of all things through eternity, when we shall have exchanged the habiliments of mortality for the vestments of immortality.

Brethren, I now close by expressing the hope that our last and final reunion may be in that "land of pure delight" where full scope will be given to all our intellectual capacities, and ample opportunity to continue our investigations, untrammelled by doubt, unencumbered by conflicting theories, and divested of all the uncertainties of this our present state of existence.

SEPTICÆMIA.

BY A. B. CROSBY, A.M., M.D.

Fellows of the New Hampshire Medical Society,—

In casting about for a topic on which to prepare a paper for this occasion, I have departed somewhat from the time-honored custom of surgeons. For, although this must serve for the report on surgery for the current year, I have not aggregated the mere results of operative surgery with which to fill the period allotted to me. One sometimes gets quite too much of blood, and would fain, for the time at least, lay aside the catling and the scalpel. The purely operative surgeon is sometimes in danger of ignoring those morbid conditions that so frequently follow the knife, and result so disastrously to the hapless patient. Giving a surcease, then, to blood, let a gentler theme engage our attention. I design to offer a few thoughts upon septicæmia. I do not profess to have devised anything new upon this subject, but I propose to give a *resumé* of the present state of our knowledge on this highly important morbid process. To the surgeon nothing can be more important, since, through its deleterious agency, the best devised and the most skilfully executed operation ends only in vexation and disappointment.

Septicæmia(derived from Σηπω, to putrefy, and αιμα, blood) is a morbid condition of the blood, caused by the introduction of a septic poison. This germ of disease may have been derived from ichorous or putrid matters. Various other terms have been employed to indicate a similar condition. Thus one author describes this disease as ichorhæmia (derived from Ικώρ, pus, and αιμα, blood); another, pyæmia (from Πύον, pus, and αιμα, blood),—terms thus used because the affection was *supposed* to be due to the presence of pus in the blood.

The term "toxæmia," or blood-poisoning, has been applied indiscriminately to this, as well as to other morbid conditions of the blood. I have preferred the term "septicæmia," since its derivative meaning is more significant of the true pathology of the disease than any other definition that has been proposed. As a primary affection, it never occurs; but is always liable to follow mechanical injuries or wounds.

It is indeed true that it may occur independent of these causes, but it will be inevitably associated with some form of suppurative inflammation. It was long ago observed that the pus, the formation of which preceded this condition, was generally poorly elaborated, and unhealthy. It has been only within a comparatively recent period that its true pathology has been apprehended, and still more recently that any efficient remedy has been devised for its relief. Ambrose Parè, one of the venerable fathers of our art, long ago remarked that, during a certain season, a large number of surgical operations were followed by the formation of abscess in different parts of the body. At about the same time, Pigrai observed for a considerable period that every patient suffering from a wound of the head died with hepatic abscess. It was, however, reserved for the genius of Velpeau to throw the first scientific light upon this disease.

More recently we are indebted, for the elucidation of the true pathology and treatment, to the splendid scientific investigations of Profs. Bennett of Edinborough and Polli of Milan. I am well assured that it will be time well spent if we consider the past as well as present pathology of septicæmia.

It should be premised that the effect of this septic poison is threefold, —

1. It affects the blood itself, diminishing its fibrine, disintegrating its red corpuscles, and favoring coagulation.

If the quantity introduced into the blood is small, elimination of the poison may occur spontaneously; but, if the amount is large, the result must be disastrous.

2. The morbid product evinces itself in its effect upon the circulation; the heart's action is depressed and weakened; the pulse is rapid and small; rapidly increasing debility supervenes, and death results by asthænia. Meantime there is frequently a marked tendency to hemorrhage of a passive character.

3. The poison may affect the solid tissues, as evinced by secondary purulent collections, mainly occurring in the substance of the viscera.

Until a comparatively recent period, the pathology of this affection had depended upon the supposition that pus corpuscles were absorbed. But the size of these corpuscles is such that they manifestly cannot pass through the walls of the blood-vessels. Or, if it is given that the pus corpuscles have gained admission through the open mouths of the vessels, it is certainly impossible for them to transude, which is essential if there is any truth in the theory of metastatic abscess. That this passage of pus corpuscles through the walls of the vessels is impossible, is still more manifest when we compare the size of the pus corpuscle

with the red-blood corpuscle: for the latter, which never transudes through the wall of a vessel, has a diameter ranging from one three-thousandth to one four-thousandth of an inch; while the pus corpuscle is still larger, being generally estimated from one two-thousandth to one three-thousandth of an inch.

A popular theory in the past has been that the pus corpuscles, carried along by the stream of blood, eventually became entangled in the capillaries, thus producing obstruction and forming a nucleus for secondary suppuration. That this is mere hypothesis is abundantly demonstrated from the fact, now well established, that the presence of the pus corpuscle in the blood is not necessary for the production of septicæmia. How, then, the question naturally arises, does blood-poisoning occur? The invariable reply of the old pathologists was, by absorption of pus corpuscles. And, when it was shown to be an anatomical impossibility, it is stated that the pus may gain entrance into the vessels by means of wounds or ulceration. It has also been claimed that phlebitis, resulting in suppuration, was a prolific source of blood-poisoning. It is much to be doubted whether phlebitis can often be regarded as a proximate cause.

Supposing this form of inflammation to be present, a coagulum would probably form, so as to sequestrate the pus, and it would be likely to escape externally. In these cases of alleged phlebitis, Virchow is of the opinion that no inflammatory action is demonstrable. He believes that in these instances thrombosis occurs, the coagulated fibrine being subsequently dissolved and carried into the blood, thus giving rise to the appearance of pus in the blood. But the death-blow was given to the old pathology when it was demonstrated by actual experiment that healthy pus might be introduced into the blood with impunity.

Another theory that obtained at one time was, that the

lymphatics may become filled with pus, and the pus corpuscles thence gain admission into the blood. The observations of Virchow, however, show conclusively that, even if the pus corpuscle is in a lymphatic vessel, it will inevitably be filtered out at the next lymphatic gland. All these hypotheses have been shown to be incorrect by the more recent investigations.

The detection of pus corpuscles in the blood has depended entirely upon the microscope, yet the best microscopists of the present day frankly admit that they cannot distinguish between the white corpuscle of the blood and the pus corpuscle. More than this, Prof. Bennett, in pursuing his investigations in regard to that peculiar blood-disease known as leucocythæmia, found to his surprise that there were innumerable corpuscles in the leucocythæmic blood that were indentical with pus corpuscles in form, size, structure, and chemical composition.

We are inevitably forced to the conclusion, then, that the presence of pus in the blood is not demonstrable. Moreover, the best microscopists themselves admit that they cannot distinguish leucocythæmia from septicæmia. Yet that they are independent and separate diseases is fully proved by their clinical history.

I have said that the injection of a healthy pus into the vessels does not give rise to any untoward symptoms. It has been shown, however, that the injection of the fluid-part of ichorous or unhealthy pus, or of organic substances in a state of putrefaction, is capable of producing all the signs of septicæmia. The result to which we ultimately arrive is, that the septicæmic condition is the direct result of the introduction of a septic poison into the blood.

In a disease of this importance, it is practically desirable that we should familiarize ourselves with its proximate causes. Clinical observation goes to show that anything capable of inducing a severe shock, especially if associated

with loss of blood and depressed vitality, is quite likely to result in septicæmia. This condition sometimes occurs after compound fractures, luxations, and wounds, particularly if they partake of a lacerated, contused, or gunshot character.

Large amputations, and the capital operations of surgery in general, frequently result in the same way. It is a well-established fact that septicæmia may occur in cases of erysipelas, carbuncles, small-pox, and scarlatina. Women in the puerperal state, persons suffering from typhoid fever, and at times even cases of gonorrhœa, are followed by septicæmia. Occasionally unhealthy suppuration in a badly healed stump has proved the forerunner of the same condition.

No period of life is exempt. Well-marked cases of the disease have occurred in infants at the breast, in adults, and in patients at a very advanced age.

Perhaps railway injuries occurring in young, robust persons, and attended with free loss of blood, most frequently give rise to this condition in civil practice. Like other diseases of a low type, it occurs more frequently in the city than in the country, is more common in the public hospital than in the private residence, and is more frequent and fatal when any epidemic influence is prevalent.

The symptoms of this disease are sufficiently characteristic, so that they need not be misinterpreted.

Septicæmia is always associated with a low typhoid type of fever, and is attended with marked disturbance of function in those organs where secondary suppuration occurs. If there is a wound, it generally, though not always, changes its appearance.

More commonly, the reparative process ceases, and the surface of the wound becomes indolent and unhealthy. The adjacent lymphatics may, or may not, give signs of disturbance. The first decided symptom is always a rigor

or chill. This may be slight or transitory in its character, or it may recur daily so as to give rise to the suspicion of a quotidian intermittent; a mistake all the more likely to be made, because the chill is followed by slight fever, and a drenching perspiration. There is likely to be a good deal of disturbance about the stomach, evinced by nausea and vomiting. The pulse is rapid, feeble, and intermittent, although I have occasionally seen it maintain about its usual frequency. The bowels are usually irregular, and the tongue at a comparatively early period becomes dry, brown, and cracked. The urine is scanty and high-colored, and the skin very early assumes a yellow, sallow, earthy tint. This evinces itself first about the trunk, and later about the conjunctiva. The breath and the perspiration have a peculiar odor, not unlike that of new-mown hay. Sooner or later, the patient is liable to get pain in his side, together with dyspnœa and dry cough, — signs that should lead us to suspect that secondary suppuration is about to occur. Or there may be analogous symptoms pointing toward the liver. In the course of the disease, too, effusion into the large joints frequently occurs, accompanied by intense pain. An erratic form of erysipelas may show itself here and there upon the surface. The symptoms are now those of excessive prostration, associated with hiccough, and the face wears a pinched, hypochondriacal expression. The disintegration of tissue now occurs rapidly; sometimes the patient is delirious; and a fatal termination in the case may be reached at the end of one week, or he may linger several.

Such in general is the clinical history of this disease. Some, perhaps several, of these symptoms, in a given case, may be wanting. It is remarkable at times how unobtrusively collections of pus occur either in the chest or within the cavity of the joints, there being no corresponding embarrassment of function to indicate it.

Occasionally septicæmia is very insidious in its approach; no rigors may be present, but there is excessive prostration, together with fever of an intermittent type. The patient is annoyed perhaps with dyspnœa, and the skin presents an icteric tint; these symptoms being followed by visceral inflammation and effusion. Not uncommonly a patient with a suppurating wound suddenly gets rigors, sweating, and excessive prostration; the symptoms rapidly becoming typhoid in their type. If, now, the skin becomes yellow, if the perspiration and breath get a sweetish odor, and, finally, if there are signs of disturbed function in the viscera, we may know that an enemy has taken possession of the citadel that may put the garrison to the sword. At times, these cases are purely negative in their manifestations; but if a patient with a suppurative wound, or otherwise, gets sudden prostration and his symptoms rapidly assume a typhoid type, we may with propriety suspect septicæmia. And, if, following these signs, we get anywhere about the body a soft, doughy feel, indicative of suppuration, our suspicion will be reduced to a demonstration. In the past it was no uncommon thing for septicæmia to be mistaken for other low forms of disease. The differential diagnosis between this affection and typhoid fever has not been, nor is it probably even now, always distinctly made out. And yet the distinction between the two diseases is sufficiently marked. Thus, in typhoid fever there will be no recurrent rigors, nor any marked signs of early prostration. The yellowness of the skin, too, and the sweetish odor of the breath, will be wanting. Besides, septicæmia never gives rise to the *tache rouge*, nor to those abdominal symptoms peculiar to typhoid fever.

Blood-poisoning has sometimes been mistaken for rheumatism, on account of the secondary affection of the joints in the former condition. But in rheumatism the articular pains are primary, and are independent of the constitu-

tional symptoms of septicæmia. In the latter condition, too, there is likely to be an erysipelatous blush, œdema, and *purulent* effusion into the joints. A mistake is sometimes made in inflammations of the viscera; but, if these affections are uncomplicated, they will be primary, whereas, in the disease under consideration, they are purely secondary affections. Septicæmia has likewise been mistaken for glanders. The nasal discharge, however, and the subcutaneous eruption, are generally sufficient to enable us to differentiate; yet we should not forget that septicæmia is a frequent concomitant of glanders.

From what has been said in regard to the nature of this disease, it will be remembered that it is more likely to declare itself in patients of a poor constitutional power, suffering from low forms of disease, and that it prevails most during epidemic seasons. Taking these facts into consideration, there are two prominent indications in the treatment of the disease: one of these is, to support the powers of life; and the other, to combat the septic influence in the blood. The first of these indications will be answered by a free resort to diffusable stimulants, together with rich animal broths or extracts.

As there is a constant tendency to coagulation of fibrine in septicæmia, and as we know that the fluidity of fibrine in the blood is maintained by the presence of free ammonia, I am myself inclined to use the carbonate of this base, associated with either bark or quinine.

All pain and irritation is to be relieved by the administration of opium. The best local treatment consists in the frequent application of poultices rendered anodyne or antiseptic *pro re nata*. The formation of pus should be the signal for early and free incision. An abundance of pure air, and absolute cleanliness, are cardinal points of excellence in the treatment to eliminate the poison from the blood. The older physicians were wont to resort to purga-

tive doses of calomel. The prevalent doctrine at present is that cathartics should be resorted to only when the bowels are loaded, and that more can be done in the way of elimination by stimulating the skin by means of the hot-air bath, or by acting on the kidneys with diuretics. But the most efficient remedy to combat the toxæmic condition is one for which we are indebted to modern science. It is in this field that the labors of Polli of Milan have been especially valuable. Believing that these low forms of disease depend upon the presence of zymotic germs in the blood, this eminent man instituted a series of experiments, the results of which led him to conclude that sulphurous acid, as it exists in the sulphites and hyposulphites of soda, magnesia, &c., possesses the power of arresting all forms of fermentation, and that it may even retard putrefactive changes. His theory is, that typhus, septicæmia, puerperal fever, hospital gangrene, dissection wounds, glanders, cholera, &c., are all due to a process of fermentation, or some analogous process, going on in the blood, the direct result of the introduction of certain septic germs. His experiments in brief were something like the following: —

Putrid blood was injected into the veins of a certain number of dogs, from the effects of which all died save one. Free doses of the sulphites were given to the same number of dogs, for a certain period, when the injection of the putrid blood was repeated, and all recovered. It was likewise found that, if the sulphites were mixed with the putrid blood injected, that the result was far less disastrous. The discharge of glanders was injected into the veins of a dog that had taken the sulphites freely, and also into the veins of one that had not. The first dog speedily recovered, but the second died.

Polli advises these agents in large doses, exhibiting generally from one to three drachms in the course of twenty-four hours. He prefers either the sulphite of soda or

magnesia, giving the preference to the latter. These salts in a crude form are used by all photographers.

Within the past year Dr. Nichols, of Boston, has given to the profession quite an elegant solution of the bisulphite of soda, which may be exhibited in doses of from ten to thirty drops, the good effects of which I have frequently had occasion to demonstrate.

Such, in brief, is septicæmia in its pathology, causes, symptoms, and treatment. To illustrate some of the points in this disease more fully, I shall venture to trespass on your patience by the relation of a few cases which are apposite to the matters on hand.

Case 1. — This patient presented himself in the practice of Dr. L. H. Currier, of Norwich, Vt., with whom I was associated in the treatment of the case. I am indebted to the politeness of Dr. C. for the following succinct record of the case, noted down by him at the time: Jan. 25, 1867, was called to see C. B., aged thirty-seven, and married. This man was by occupation a farmer, robust in appearance, and emphatically a "hard boy." There had been nothing remarkable in his previous history, except that, about two years previous to his present sickness, he consulted me for an affection of the stomach, which I considered dyspeptic. I prescribed for him several times, without affording relief; when, as an experiment, he tried an Indian nostrum, after taking which for three or four days an eruption appeared, covering the whole surface of the body, except the face. It appeared like eczema, the discharge being so profuse that he was obliged to change his shirt three or four times a day. The effect of this was to relieve the pain and distress in the stomach, and a troublesome diarrhœa entirely. He has been well up to the present time. I find him to-day with a hot skin, pulse ninety-two, face swollen, and jaws stiff from inflammation of the neighboring glands and tis-

sues. He complained of sore throat, and inability to swallow. His wife said that he had swallowed nothing for several hours, and that he had no rest the previous night. I succeeded in obtaining a partial view of his throat, and was satisfied that the tonsils were not much enlarged. He had been sick two days. He began to have pain in the left side of the under jaw the 23d inst., proceeding, as he supposed, from two or three decayed molar teeth on that side of his face.

Thursday he was worse and kept his room, and Friday he sent for me. I prescribed Dover's powder, and fomentations of hops and poppies to the inflamed part.

Jan. 26. No better; the swelling of the neck and tongue increasing. Continued fomentations and anodynes; pulse ninety-two.

Jan. 27. Swelling much increased; neck full and stiff; tongue filling the mouth and protruding between the teeth, rendering breathing difficult, and swallowing almost impossible.

The inflammation already partakes of an erysipelatous character.

He had, while I was present, a violent and prolonged chill. He had a lighter one the day before. I prescribed whiskey, in addition to anodynes and continued fomentations. I was called up in the night in haste, found him suffering extreme dyspnœa, and suffocation seemed imminent. The tongue, swollen to its full capacity, was pushed beyond the teeth.

I prescribed frequent doses of tartar emetic, and, on the appearance of nausea, he was somewhat relieved. On the morning of Jan. 28, an abscess broke in his throat, and fetid pus poured from his mouth continuously. I prescribed castor oil, one ounce; turpentine, gtts xx; and a wash of chlorate of potassa. In the afternoon found him better; breathing and swallowing improved, and raising purulent matter from his throat freely. As his physic had operated

well, I gave an anodyne, and prescribed sulphate of quinia, one grain; and tincture of the sesquichloride of iron, gtts xx; together with beef-tea freely.

Jan. 29. Much the same, except that the erysipelas had extended round upon the right side of the head and face. Continued treatment, and ordered another dose of oil and turpentine.

Jan. 30. Found him raising purulent matter in mouthfuls; inflammation in the right cheek and on right side of neck much increased; right eye closed. Ordered warm poultices to face; continued treatment.

Jan. 31. Called very early in the morning. Found him in the greatest distress. Dyspnœa urgent; neck and face enormously swollen, particularly on the right side. I made an incision through the cellular tissue, a little anterior to the right ear. As I hoped, the matter flowed freely, and, by relieving the tension, gave him some ease. Before leaving, I passed a probe into the opening downward towards the chin two inches, and there made another opening.

During the day he seemed to be growing worse, although the discharge was free outside, and the pus seemed to run constantly from his throat. In the afternoon, Dr. A. B. Crosby was called in consultation. He made a free opening through the skin and cellular tissue about three inches in length, connecting the two I had made, in his cheek. He also prescribed quinine in grain doses, with tincture of the sesquichloride of iron, gtts xxx, every two hours.

Whiskey and beef-tea were to be exhibited freely and often; and, to guard against septicæmia, the solution of the bisulphite of soda was to be exhibited in xx drop doses every six hours. Locally a solution of the permanganate of potassa was to be injected into the wound, and poured over the poultices.

Feb. 1. I was called in haste. Messenger said he

was bleeding to death. Found him rattling, and scarcely able to articulate from the accumulation of pus and blood in his throat, which he was unable to hawk up. He had bled about a pint into a wash-bowl. His wife said it came from his mouth in a stream. I gave him a large dose of acetate of lead. Soon after, he had a coughing turn, and the blood started again from his throat, and ran freely from the opening in his cheek. I plugged the external wound with lint saturated with the solution of the persulphate of iron, and made him swallow small lumps of ice. He bled almost as much as he did before, but all active hemorrhage ceased about noon. I inferred that the blood came from small branches of the carotid, cut off by ulceration.

Prof. Crosby had been sent for in the morning, and he came at four o'clock, P.M. In addition to the former treatment, he prescribed xx gtts of turpentine in milk every two hours, and, in case the bleeding returned to any extent, a teaspoonful of turpentine at once; also the injection into the throat, through a gum catheter, of a solution of the persulphate of iron. The hemorrhage did not return, although considerable oozing through the lips of the wound and throat continued all day.

Feb. 2d. Found him appearing better; no hemorrhage; the abscess discharging freely. The appearance of the pus is considerably changed, and is now quite thin and ichorous, and the swelling has diminished in the face. Continued the tonic and styptic treatment, together with the bisulphite of soda, and all the whiskey and beef-tea he would take.

Feb. 3d. Appears better, although somewhat stupid. Abscesses are discharging freely. Pulse eighty-four. I shaved his face and put a clean shirt upon him, and continued the treatment. In the evening he appeared differently; when spoken to, seemed excited, and answered at random. His wife said he had complained of his head,

and had appeared strangely all day. Pulse ninety and hard. His wife and friends thought his disease was changing to the brain. It seemed difficult to determine whether the brain was invaded, or whether his stupor and derangement were the result of pushing quinia and morphia too far. I thought the latter, and accordingly dropped the morphia entirely, and prescribed the quinia and iron once in four hours instead of two, and continued the bisulphite, whiskey, and tea, as before. Hoffman's anodyne to be taken if necessary.

Feb. 4. I found him better; stupor gone; and no mistake but that he had been braced a little too much. Swelling on the neck is gradually growing less. Discharge is free; pulse eighty-four. I suspended the turpentine, not fearing any more hemorrhage, but continued the other treatment.

Four o'clock, P.M. Saw him again; he appeared badly; sat in a rocking-chair, supported on either side, his countenance wild and anxious, carotids throbbing, breathing rapid, skin bathed in perspiration, and the pulse one hundred and twenty. His wife said that he had at two o'clock a severe chill, shaking violently for half an hour: since reaction occurred, he had been as I found him. I asked him how he felt. "Oh," said he, "I am tired to death!" I gave him immediately Dover's powder, morphia, and camphor, with hot sling, and ordered these continued every five hours.

It was a great mistake leaving him so long without an opiate. Hoffman's anodyne was suspended as insufficient, and the other treatment continued.

Feb. 5. Found him more comfortable; said he had rested better; pulse ninety-two; skin moist, and of a yellow, parchment color. The matter discharged was now becoming thicker and less in quantity, and answered well the description of laudable pus. Continued the anodyne pow-

der, quinia, and iron, and the bisulphite of soda, as before, and all the whiskey and beef-tea he would take.

In the afternoon he had another severe chill, followed by fever and profuse sweating.

Feb. 6. Found him comfortable; pulse eighty; skin moist, growing more and more sallow; discharge looking well. A considerable swelling has appeared above the right ear, and is exceedingly tender, seeming to threaten another abscess.

Feb. 7. Found him unequivocally better. There was no chill yesterday, no sweating, pulse seventy-six, and the discharge growing less and creamy. The swelling over the ear is growing larger very fast. The right eye is entirely closed for the second time.

Feb. 8. Still better; pulse seventy-six; swelling about the ear pointing, and less angry under the operation of a poultice. Treatment continued.

Feb. 9. Still better; opened an abscess midway between the ear and right eye, which discharged very offensive matter freely.

The discharge from the old opening in the cheek is growing less, and that from the throat has entirely ceased.

I suspended the bisulphite of soda, but continued the anodyne powder, together with the quinia and iron. From this time to Feb. 13 the patient continued to improve.

Feb. 14. The discharge of matter has almost entirely ceased. He complains of deep-seated and splitting pain in the region of the temporal fascia, and the treatment is continued.

Feb. 15. The head is swelling up again, and he complains of much pain. I ordered a hot poultice to the right side of the head, and shaved the hair off.

Feb. 17. I passed a trochar into the temporal fascia through the fascia to the bone. Stinking pus flowed freely, and Mr. B. felt like a new man.

Feb. 18. He lay in bed, as a man should, the first time for four weeks, during all which time he was obliged to sit up, totally unable to lie down.

I made my last visit Feb. 26. He convalesced rapidly, and now labors hard every day.

Case 2. — Capt. F. W. B., aged twenty-two, was an aid on the staff of Gen. Wm. F. Smith.

June 30, 1864, while standing by the General's side, and just as he was turning to tell him that he was in a dangerous position, he himself fell, wounded in the left knee-joint by a musket-ball.

The surgeon who first saw him entertained the opinion that the ball had passed around subcutaneously, but outside of, the knee-joint, having emerged at the back part of the limb. He was sent on to New York, where the same view of his case was entertained, and he was forwarded to his home at Bennington, N. H. He bore the journey well, but while at Concord, July 4, he had severe pain in the knee, and passed a very restless night. Next day, however, he went home, travelling twenty miles by rail and nine by carriage. This part of the transportation was made very slowly in order to avoid jarring the limb. From this time to the 15th of July he was apparently comfortable, and, if quiet, had no pain, and very little constitutional disturbance. It would seem that there was no swelling, no heat. The discharge from the wound was, however, all this time, very offensive. July 15, Prof. Albert Smith was requested to visit the patient, and was informed that he had had some slight chills and pain.

I quote from a recent letter of Prof. Smith: "The next day he had a severe chill, with excruciating pain. I was sent for, and took charge of the case. He got relief from the application of fomentations and opiates. From this time the inflammation went on without abatement. I did

not keep a daily record of the treatment, so that I cannot make a proper medical return for so grave a case. I can only say that on the 16th, 17th, 18th, and 19th, when you first saw him, the inflammation was met by Dover's powder and camphor, aconite, cathartics, and externally fomentations, &c." I visited Capt. B., in consultation with Prof. Smith, on the 19th of July. After a careful examination of the knee, I was satisfied that the wound communicated with the cavity of the joint, and, in accordance with authority and my own experience in such wounds, I expressed the opinion that his only chance for life was in amputation. It was a matter of some doubt whether the patient could endure the shock of an operation. After a careful consideration of all the circumstances, it was determined to take the risk. I amputated at the lower third of the thigh, on the morning of the 20th. The shock was terrific, and for some time death seemed imminent. For about two hours there was no perceptible pulse, and there seemed little chance of his rallying. Nevertheless, under the persistent use of stimulants and artificial heat, reaction slowly came about. He passed a quiet night, and, on the morning of the 21st, when I left him, he was very comfortable, and the case looked promising. I may add that an examination of the amputated leg revealed the fact that the ball had passed through the external condyle communicating with the cavity of the joint. The articulating surfaces were congested and inflamed, and the muscular interspaces of the thigh were infiltrated with pus. The result fully demonstrated the propriety of the amputation.

I again quote from the polite letter of Prof. Smith: —

"Subsequent to the amputation, it was our endeavor to sustain him by quinine, beef-tea, &c. For a few days after he had rallied from the operation, everything appeared well and encouraging; but a change came on a day or two before his death, when the discharge became very offensive, the

granulations pale and flabby, and the vital powers evidently began to fail. A severe chill the night before preceded his death. The night was awfully restless, with a constant delirium, picking at the bed-clothes, and a gradual sinking till 8.30, A.M., July 30, when he expired."

I have been thus minute in detailing these two cases, because they are both excellent illustrations of the morbid process which forms the subject of this paper. I regret that the formidable proportions to which my report has already attained precludes me from giving anything but the briefest epitome of the remaining cases to which I shall call your attention.

Case 3. — I visited this patient in the summer of 1864, in Northern Vermont, in consultation with Dr. Geo. L. Gove, of Whitefield, N. H.

Dr. G. has kindly furnished me with a report of this case, from which I condense the following: About the middle of February, 1864, C. G. was taken sick, the diagnosis of the attending physicians being pneumonia. Two months later he could lie only on his back, inclining to the right side, and was coughing but a little. His pulse was one hundred, and appetite tolerably good. The left lung was sound. There was dulness on percussion over the lower three fourths of the right lung, and only a feeble respiratory murmur at the very apex. About this time, in a fit of coughing, he began to raise pus, which soon poured from his mouth in a stream, threatening suffocation.

The amount raised was variously estimated by those present from two to four quarts. This was all raised during the first twenty-four hours, when it ceased. In about two weeks after, in a fit of coughing, a repetition of the same circumstances occurred. Some time in May, Dr. Gove performed paracentesis thoracis, introducing the trochar between the seventh and eighth ribs, drawing off two quarts of pus, greatly to the patient's relief.

This operation was repeated several times. Early in August, he began to fail, losing his appetite and getting severe diarrhœa, and vomiting, associated with symptoms of septicæmia.

The symptoms being desperate, Dr. G. made an incision two inches in length between the seventh and eighth ribs, opening into the cavity of the pleura. About two quarts of fetid and exceedingly offensive pus escaped.

Warm water with chlorinated soda was freely injected into the cavity; the treatment was decidedly tonic and stimulating, and he soon rallied and improved. At first a quart could easily be injected into the pleura, but the wall of the chest gradually collapsed until the cavity would hold only about two ounces. This patient was afterwards at Hanover, under my care, for some time. I repeatedly injected, at different times, iodine, persulphate of iron, black-wash, and a variety of antiseptic solutions. Occasionally the stimulating injections would give rise to inflammatory action, when he would rapidly get nausea, chills, followed by fever, and profuse sweating; the pulse at such times being one hundred and twenty.

The symptoms would always be speedily relieved by washing out the cavity with tepid water, or chlorinated water. Eventually only an ounce could be injected, and the patient became stout and hearty in appearance. He is still living, with some discharge from the pleura, and, owing I fancy to his own imprudence, his general health is again suffering.

Case 4. — In connection with the preceding case, I will briefly advert to another instance where a serous membrane was involved, and where septicæmia seemed imminent. The patient was one on whom I made an ovarian section. The tumor removed weighed twenty-eight pounds. The patient did very well for the first seventeen or eighteen

days. At the end of this time the pulse suddenly became rapid and feeble, the respiration accelerated, the skin clammy and sallow. In moving the ligatures at the lower angle of the wound, a considerable quantity of pus escaped, as though it might have been pent up. Thinking that the signs of incipient septicæmia might be owing to purulent accumulation in the peritoneal cavity, I supported the abdominal wall with both hands, and directed the attendants to turn the patient on her side. A little pus escaped at first, and then about two quarts of sero-purulent fluid flowed out at the opening beside the ligatures. This had a sickish, offensive odor; the pulse and respiration diminished in frequency, and the appetite returned almost immediately. The subsequent treatment was decidedly tonic and stimulating. The patient made an excellent recovery and is still living.

Here the symptoms of septicæmia were imminent, but were apparently combatted by the withdrawal of the septic poison from the peritoneal surface, whereby absorption was prevented.

Case 5. — Mrs. J., a young married lady, was delivered of twins early in the winter of 1866-7. There were no untoward symptoms during the first week, but at the end of this time she had a severe chill. This was followed by excessive prostration and sweating. The pulse ranged from eighty to eighty-four, and never exceeded this. She complained of nothing but excessive debility.

The skin soon assumed an icteroid appearance, and at length became exceedingly sallow and cadaveric. She had slight nausea, emaciated rapidly, and had some irregularity about the bowels.

Suspecting that the case was septicæmic in its nature, I put her upon an active tonic plan of treatment, and for the first fortnight gave her the bisulphite of soda freely. She

improved steadily, although not rapidly, under this treatment. She regained quite a good appetite, got rid of her nausea, and was manifestly gaining in tone. The bisulphite having become quite offensive to her, it was suspended.

From this time she gradually failed, the skin acquiring an exceedingly earthy tint, and the patient being greatly annoyed with persistent nausea and vomiting. There were occasional slight chills, more or less sweating, and excessive prostration.

A week before her decease I informed her friends that, in my opinion, the disease would prove fatal, and declined giving an emetic, which they were anxious I should do. This was the last time I saw the case; but I subsequently learned that the emetic was administered, and that the patient survived its operation only four hours.

Case 6.—Gen. S., of Vermont, aged eighty-two, returning from Boston late in the winter of 1866, became conscious of a sense of irritation over the left scapula. This was followed by swelling and inflammation, attended with marked constitutional depression.

At the end of a week I visited this gentleman in consultation with his attending physician.

The disease was evidently carbuncle. The diseased mass had already commenced to slough, the surface showing here and there shreds of dirty lymph. I made a crucial incision through the diseased tissues into sound parts.

The vertical cut was nearly six inches in length, and the transverse about three inches, which will give an approximate idea of its large size. From the advanced age of this patient and the extent of the disease, I did not anticipate a favorable result.

Nevertheless, he was put upon a strongly tonic and stimulating plan of treatment, together with the bisulphites. After the incisions, the surface of the diseased mass was

deluged in a weak solution of the permanganate of potassa, and large emollient poultices were applied, to be often repeated. The prostration in this case was at times excessive, yet Gen. S. eventually recovered, and is still living in good health.

Case 7. — J. B., a middle-aged man, resided in Colchester, Vt.

In the spring of 1866, this man consulted me in relation to a tumor situated upon the right side of his back, commencing near the apex of his shoulder and passing down between the spine and base of the scapula, beneath which it dipped, and eventually extending round on the right side beneath the arm. The tumor was enormous, and, after its removal, weighed about eighteen pounds. A tumor had been removed from the same region, about one half the size, by my lamented predecessor in the University of Vermont, Prof. Conant. The mass now presenting was firmly adherent to the ribs, and gave to the man the deformed appearance of a hunchback. I did not advise the removal of the tumor, but the patient himself decided the question, and requested me to operate.

I made two incisions in the direction of the long diameter of the tumor, including an elliptical portion of the skin, each wound being eighteen inches in length. I then dissected off the coverings in both directions, and eventually reached the ribs on both sides of the mass. The adhesion to the ribs was very firm throughout; and, on dissecting up the mass on either side, the ribs presented a dead-white, lifeless appearance.

At length, on reaching the central portion of the undersurface of the tumor, I discovered that the seventh and eighth ribs were fractured and partially disintegrated, as the result of a degeneration of a cancerous mass.

I could readily pass my fingers through the ends of the

broken ribs so as to touch the pleura. Of course, a very unfavorable prognosis was the result. The amount of capillary hemorrhage from these extensively incised surfaces was very large.

It was, however, controlled by the application of persulphate of iron, and, after the introduction of an abundance of sutures, by firm compression over the whole surface. The shock was very severe, and I doubted whether the patient would survive the operation many hours.

He rallied, however, and for a fortnight there were no untoward symptoms. Meantime the wound granulated rapidly, the patient had a good appetite, and the exposed pleura showed no signs of disturbance. At the end of this time, however, the patient had a severe chill, followed by profuse sweating and rapid emaciation. The skin became yellow and cadaveric, the pulse rapid and small, and the wound flabby and unhealthy.

At the end of five days, with scarcely any signs of irritation preceding it, I discovered a large abscess near the apex of the left shoulder. On opening this, a pint of exceedingly offensive pus escaped. This was followed, in a few days, by another large abscess near the elbow, which was also opened. At the end of four weeks after the operation, the patient's skin resembled old parchment, bathed in a clammy moisture, the pulse exceedingly rapid, emaciation extreme, and the patient delirious.

In about five days the patient had a succession of chills, attended with dyspnœa, feeble efforts at coughing, and a low, muttering delirium. It was evident that the right lung was riddled with pus. The symptoms now rapidly assumed an excessive typhoid type; and the patient died, in just five weeks from the operation, of septicæmia.

I may add that the treatment of this case throughout was decidedly tonic, stimulating, and supporting in its character.

A few days before his death, I procured from a photo-

grapher a crude preparation of the bisulphite of soda, and gave it to the patient, but without any apparent effect.

Permit me, gentlemen, very briefly to offer a few practical comments on the preceding cases. The first case seems to me a typical one in point. I did not see this patient till he had been sick six days. Already profuse suppuration had occurred. He was at once put upon the bisulphite of soda, and a tonic plan.

Four days subsequently, he had a long chill, profuse sweating, a pulse of one hundred and twenty, a yellow, cadaveric skin, and secondary abscesses following. I am well aware that one case proves nothing; but my own observation leads me to infer confidently that, unless this patient's blood had been persistently sulphited, this combination of symptoms would have inevitably proved fatal. I am firm in the conviction that in this instance the remedy certainly obviated the tendency to death. The second case was a gunshot injury, a class of wounds especially liable to take on this septicæmic character. This case was one of interest to me, from an incident connected with it. About the time that Capt. B—— received his wound, I had the honor to read before this Society a paper on "Gunshot Injuries of the Knee-Joint requiring Amputation."

The paper having been written very hastily, a young collegian kindly volunteered to copy it, and, in doing so, became interested in its subject-matter. A few days after, he remarked to me that a friend of his, Capt. B——, had been wounded before Petersburg, in the knee; that he reached New York in good condition, and that the surgeon said he would save his leg, and asked me what I thought of it. I replied, "One of two things: either your friend's knee-joint was not opened; or, if it was, he will sooner or later lose his leg or his life, or perhaps both." I heard nothing more of this case until I received Prof. Smith's dispatch requesting me to visit it.

The destructive inflammation, the resulting septicæmia, and the fatal issue, I have already portrayed.

Cases three and four are illustrations of the danger of septicæmia, resulting from the detention of putrid matter on the surface of serous membranes.

In the case of empyema, the mere thorough drainage of the cavity of the pleura would relieve, and free lavation of the membrane would completely arrest the septicæmic tendency.

In the case of ovarian section adverted to, simple but complete drainage of the poisonous matter from the surface of the membrane at once relieved the symptoms. Besides, injections into the cavity of the peritoneum, under such circumstances, have been successfully practised, and the danger has thus been obviated. It is just here that an important practical fact should engage our attention.

After all operations involving the peritoneum, the danger of septicæmia is quite as great, if not greater, than that of peritonitis. This danger of blood-poisoning may arise from two sources: Clots of blood may collect within the cavity, and gradually become decomposed; or putrid pus may form here. In either case, the toxæmic condition is sure to result, unless the offending substance is either drained away, or, what is better, unless it is washed away.

The fifth case is one that is sufficiently common, since puerperal women not unfrequently succumb to septicæmia.

These cases were formerly supposed to be entirely due to uterine phlebitis, yet I am confident that, in the case here detailed, there was no inflammatory action.

Where there has been much hemorrhage during the confinement, or where a fragment of the placenta has been left within the uterus, it is easy to see how, by a putrefactive or fermentative process, a morbid product might be formed that would insure the septicæmic condition.

In the sixth case, from the advanced age of the patient,

no less than from the enormous size of the carbuncle, there was every reason to anticipate septicæmia and death. In the local treatment of these cases, it is with great propriety insisted that, after the incisions are made, the diseased mass should not be subjected to compression in order to force out the pus, since the danger of putrid absorption is greatly increased thereby.

My father, Prof. D. Crosby, has, at times, successfully treated carbuncle by carrying the knife around the whole mass in the adjacent healthy tissues, thus excising it as he would a tumor. He claims that this method possesses two advantages: First, that an offensive mass, which must inevitably be gotten rid of by sloughing, is thus disposed of at once; and, second, that the entire and immediate removal of this gangrenous mass diminishes very much the danger of septicæmia. Practically, I may also add, the excision of the whole carbuncle reduces the suffering of the patient to its minimum.

The last case is suggestive in still another connection. In this instance, the signs of septicæmia were unmistakable, and the patient was put on the bisulphites during the last week of his life, but without any perceptible effect.

The fact is entirely patent that the toxæmic condition may have gone to that extent that sulphurous acid may possess no power to overcome the disease. In fact, the experiments of Polli show conclusively that, where the introduction of the bisulphites into the blood antedated the introduction of the zymotic germs, the animals speedily recovered; that, where they were introduced synchronously, the disease was essentially modified and mitigated.

I think we may fairly infer from this that, in those cases where the poison antedates the antidote, the result must at least be problematical. The practical deduction which I would draw from this is, that, after all capital operations, after all severe mechanical injuries, and in all those

conditions where we know that septicæmia is very likely to occur, we may with propriety put the patient on the persistent use of the bisulphites from the outset.

And, by as much as a rational although moderate prophylaxis is more potent than the most powerful curative agents of the pharmacopœia, by so much may the surgeon hope to conserve life by his knife with one hand, while with the other he guards against that most deadly foe to his success, *septicæmia.*

REPORT OF THE DELEGATES

FROM THE

NEW HAMPSHIRE MEDICAL SOCIETY.

To the Fellows of the New Hampshire Medical Society,—

ALL members of the medical profession must or should have a deep interest in whatever tends to the elevation of its members, or better prepares those who are to enlarge its numbers and fill the places of those constantly passing away, and upon whom their mantles must rest.

That we have in New Hampshire, situated in one of the most inspiring landscape-surroundings, where the magnitude of Nature's works is well calculated to develop thoughts and aspirations perpetually urging the student onward, an institution time-honored and venerated, whose alumni are found adorning all professions, and none less than that of the Doctor of Medicine, is seemingly forgotten by us; and, while we look to some far-off city for superior advantages offered for obtaining a medical education, we too often overlook the equally ample advantages offered by the only collegiate institution in our own State.

Your delegates, having received notice of the time of the examination at Hanover, repaired thither, and the examination was immediately commenced. Each candidate was examined separately by the Faculty, in presence of and by your delegates. Their examination was satisfactory,—

the class generally acquitting themselves well; and, from a class numbering sixty-four, thirty young men received the degree of Doctor of Medicine.

The occasion was improved, under the guidance of the several professors, in ascertaining by our observation the means and facilities in possession of the Faculty for imparting instruction, and for elucidating and explaining the several subjects taught, not only orally, but by means of all the most improved methods of teaching the eye as well as the ear in the several branches of the medical science.

The lecture-rooms are well lighted, well ventilated, and supplied with seats easy and comfortable for the students.

The Laboratory for instruction in Chemistry is well fitted up with all the necessary means for teaching successfully this useful but too much neglected department of a medical education.

In the Anatomical Cabinet, the Pathological Museum, the large collection of specimens in the Botanical Museum of the College, — in fact, in every department, — we found ample means of illustrating the various subjects taught, and were impressed with the idea that any student of medicine, wishing to obtain a thorough knowledge of his profession, need not fail in acquiring it here; and, aside from the advantages of visiting the wards of the hospitals in our larger cities (and such opportunities, so far as of general benefit, are more apparent than real), we believe the course of instruction is as systematic and thorough in Dartmouth College as in any of the medical schools in New England.

We should be fulfilling only a part of our duty, did we fail to acknowledge the courtesy received from the Faculty, in the kindness and attention shown us during the intervals of a protracted examination; and we close this report commending the school to the favor and patronage of the mem-

bers of the medical profession as in every way worthy of their confidence and support.

THOMAS WHEAT, M. D.,
S. L. F. SIMPSON, M. D.,
Delegates of the New Hampshire Medical Society.

CONCORD, April 24, 1867.

TRANSACTIONS

OF THE

NEW HAMPSHIRE MEDICAL SOCIETY,

SEVENTY-EIGHTH ANNIVERSARY.

PROCEEDINGS.

TUESDAY, June 2, 1868.

THE Seventy-Eighth Annual Meeting of the New Hampshire Medical Society was held in Manchester, on Tuesday and Wednesday, June 2 and 3, 1868.

At half-past ten o'clock, A.M., the meeting was called to order by the President, Dr. A. H. ROBINSON of Concord.

The proceedings of the last meeting were read by the Secretary.

The following committees were appointed by the Chair:—

Committee to examine Credentials and introduce Delegates — Drs. PRAY, HILDRETH, and PEABODY.

Committee to examine Patients — Drs. FRENCH, HILL, and HALL.

Committee to audit Treasurer's Account — Drs. BUCK and BROWN.

Committee on Nominations — Drs. WEBSTER, SMITH, PARKER, HOW, SMALLEY, and MANNAHAN.

The Council recommended the following named gentlemen, who thereupon were elected members of the Society:

GILMAN COLBY, M. D., Holderness.
JAMES F. FITTS, M. D., Francestown.
JOHN W. PARSONS, M. D., Portsmouth.
WM. CHILD, M. D., Bath.
CHARLES W. PERKINS, M. D., Alton.
I. P. GEORGE, M. D., Newport.
E. FORREST MCQUESTEN, M. D., Nashua.

J. W. ODELL, M. D., North Hampton.
ADOLPHUS L. TREMBLAY, M. D., Manchester.
LELAND J. GRAVES, M. D., Langdon.
B. H. BARTLETT, M. D., ————.
T. S. FOSTER, M. D., Laconia.

A letter was read from Miss M. O. A. HUNT, desiring admission to the Society as a regular graduate in medicine. Referred to the Council, and afterwards, by vote, laid upon the table.

Dr. T. R. NEWHALL, a delegate from the Rhode Island Medical Society, was introduced, and invited to participate in the proceedings.

Dr. BUCK, from the Committee on Revision of the By-Laws, made a report which it was voted to lay upon the table for further action.

Dr. CONN, delegate to Vermont Medical Society, and Dr. HILL, delegate to Maine Medical Society, each made their reports, which were accepted, and referred to Committee on Publication.

Dr. PEABODY, Committee on Practice of Medicine, read his report, which was accepted, and referred to Committee on Publication.

Dr. PRAY read a paper upon the use of the Thermometer, or "Thermometry of Diseases." Accepted, and referred to Committee on Publication.

Dr. WHIPPLE read a paper upon the subject of "Prosecutions against Medical Men." Accepted, and referred to Committee on Publication.

Dr. WHEELER, orator, read his Oration before the Society; subject, "Medical Diagnosis."

Dr. HOW, orator, also read his Oration; subject, "Medical Education." Both of which were accepted, and referred to Committee on Publication.

The Committee on Nominations next made their report,

in which the following named Fellows were presented to the Society as candidates for the various offices for the ensuing year. It was voted that the Secretary deposit the report as a ballot, by which the officers and delegates were elected, as follows: —

PRESIDENT.

LEVI G. HILL, M. D., Dover.

VICE-PRESIDENT.

WILLIAM W. BROWN, M. D., Manchester.

SECRETARY.

CHAS. F. HILDRETH, M. D., Suncook.

TREASURER.

THOMAS WHEAT, M. D., Manchester.

COUNCILLORS.

Albert Smith,
E. K. Webster,
Leonard French,
D. F. Parker,
Thos. H. Marshall,
C. K. Kelley,
George B. Twitchell,
G. P. Conn,
Harrison Eaton,
T. J. W. Pray,
Chas. F. Kingsbury,
B. H. Phillips.

CENSORS.

C. H. Boynton,
L. B. How,
I. P. George,
N. Call,
Val. Mannahan,
A. F. Carr,
F. McQuestion,
D. P. Goodhue.

DELEGATES TO DARTMOUTH MEDICAL COLLEGE.

L. B. How, Charles H. Kingsbury.

DELEGATES TO OTHER STATE MEDICAL SOCIETIES.

To Massachusetts — Albert Smith, J. F. Hall.
To Rhode Island — Geo. B. Twitchell, Thos. B. Marshall.
To Connecticut — J. L. Swett, S. M. Whipple.
To New York — A. Smalley, Nathaniel Tolles.
To Vermont — L. C. Bean, D. T. Parker.
To Maine — E. K. Webster, Nahum Wight.
To American Medical Association — A. Smith, A. Smalley, D. T. Parker, A. B. Crosby, Leonard French, Geo. A. Crosby, Val. Mannahan, T. J. W. Pray, N. Tolles, Geo. B. Twitchell.

STANDING COMMITTEES.

On Surgery — Lyman B. How.
On Practical Medicine — Harrison Eaton.
On Diseases of Females — A. H. Robinson.
On Venesection — A. Smalley.
On Necrology — T. J. W. Pray.
On Toxicology — J. F. Hall.
On Sanitary Condition of Almshouses — J. H. Wheeler.
On Materia Medica — Albert Smith.
On Epidemics — C. F. Kingsbury.
On Fractures — Geo. B. Twitchell.
On Publications — C. F. Hildreth, Thos. Wheat, Nathan Call.
On Arrangements — G. P. Conn, S. L. F. Simpson, B. H. Phillips.

ORATOR FOR 1869.

WILLIAM D. BUCK.

At 2 o'clock, P.M., the President, Dr. ROBINSON of Concord, read the Annual Address, which was referred by vote to the Committee on Publication.

At 3 o'clock voted to adjourn for dinner, and then meet at 6 o'clock, P.M.

EVENING SESSION.

At 6 o'clock called to order by the President elect, Dr. HILL of Dover.

The report of the Committee on Revision of the By-Laws was taken from the table, and, after a short discussion, was postponed for half an hour.

The report of the Treasurer was read and accepted.

The following Committee was appointed to procure the alteration of the Charter: Drs. ROBINSON, GAY, and SIMPSON.

Concord was selected as the next place of meeting, which was voted to be held upon the third Tuesday of June, 1869.

It was voted that the annual tax be reduced to two dollars, and the annual dinner be dispensed with.

It was voted that the Treasurer be instructed to notify delinquent members of their indebtedness.

The subject of the revision of the By-Laws and Constitution was next discussed, and it was voted that the report of the Committee be referred to the Council.

Remarks upon the registration of births and deaths were made by Dr. CONN, and it was voted that Drs. CONN, HOW and WEBSTER be constituted a committee to report at the next meeting. The same committee was authorized to take into consideration the sale of poisons by apothecaries, and to memorialize the present Legislature on that subject.

The committee appointed last year to present a memoir upon the death of Dr. MUZZEY was continued for another year.

Dr. SMALLEY was appointed a Committee to report resolutions and a memoir upon the death of Dr. SKINNER.

Dr. SMALLEY introduced the following resolutions upon the death of Dr. B. F. SKINNER, which were accepted, and it was voted that the Secretary be instructed to present the same to the family of the deceased: —

Resolved, That in the death of Dr. B. F. SKINNER, of Enfield, a worthy member, we deeply deplore the loss to the profession, to the community, and to the Society.

Resolved, That in the qualities he exhibited in his life we recognize the humane man, the obliging neighbor, and the intelligent physician.

Resolved, That we tender his afflicted family our warmest sympathies in this their bereavement.

Resolved, That the Secretary be requested to forward a copy of the above to the family of the deceased.

At half-past ten o'clock, voted to adjourn to meet at 8 o'clock Wednesday morning.

MORNING SESSION — SECOND DAY.

Dr. HILL, the President, called the meeting to order at 8 o'clock, A.M. Interesting remarks were made by nearly all present upon the subjects of subcutaneous injection, and the best times of operating for phymosis and congenital harelips.

The Secretary was instructed to notify the chairmen of committees upon each subject.

The Secretary was also instructed to publish the time of annual meeting in the Boston "Medical and Surgical Journal," and to send an abstract of the proceedings of this meeting to the editor of the same journal.

No further business being before the meeting, it was voted to adjourn.

CHARLES F. HILDRETH, *Secretary*.

ADDRESS

DELIVERED BEFORE THE N. H. MEDICAL SOCIETY, AT ITS ANNUAL MEETING, JUNE 2, 1868.

BY THE PRESIDENT, A. H. ROBINSON, A.M., M.D.

Fellows of the New Hampshire Medical Society,—

We have assembled, on this our anniversary, not simply for the interchange of those courtesies which are usual among acquaintances, not alone for the warm embraces of friendship, not merely for the mutual expression of sympathy, and the wishing each other "good luck in the name of the Lord." A meeting for such purposes alone would be pleasing and appropriate, and not without its advantages in a social point of view; but we have come together for something more, — as a brotherhood, united by bonds of a common interest, actuated by motives of a common choice, and having, as we trust, a common aim in the pursuit of a profession which we all love, and which, by its noble and holy character, as well as by the memories clustering around it, rightly claims all our devotion; a profession, too, which we believe is from its nature calculated more than any other to task the highest energies of the human intellect: for, while other professions have, as it were, to explore but a single fountain-head from which to draw the streams of inspiration, ours has many sources, and it is the physician's task to unfold them to the light, and to conduct their

TRANSACTIONS

OF THE

NEW HAMPSHIRE MEDICAL SOCIETY,

SEVENTY-EIGHTH ANNIVERSARY.

the progressive age! But, gentlemen, it may be well to reflect — if, in the hurry and turmoil, the noise and bluster around us, we can reflect — that change is not necessarily advancement. The mill-wheel, in its ceaseless turnings, with its buckets up and its buckets down, makes frequent and continued changes, and at length wears itself out in its labors, and yet the mill-wheel makes no advancement. And so with the moral and intellectual labors of philosophers, so called, it is often found that, with all the hurly-burly attending and resulting from such labors, little or no true progress is made, at least in the manner or of the kind intended; and, if truth has advanced, it has not been as the resultant of their labors, but in spite of them. The savans of France, before and during her great Revolution, filled the world with the echo of their deeds, and scored upon the face of all Europe the marks of their power; and yet it is to be questioned if, in the manner designed, any true progress was made by them, and if that with which they are credited is not rather due to the conservative efforts of those who dared to oppose them. Many of them lived long enough to witness the blasting of their fondest hopes, and many to be crushed themselves to atoms by the fell and mighty spirit which they had evoked, but could not control. Change indeed, sad and terrible change, there was; for all Europe was changed as if the fires of the last great day had rolled their devouring waves over its surface. But where was the elevation of humanity which was promised, — the great advancement of truth for which they professed to labor? Echo answers, "Where?" And yet it is grateful to reflect, that, as in every age there may be innovators, so in every age there are the true laborers, by whose aid science makes progress, men who duly and carefully avail themselves of the researches of the past, and add to them researches of their own; and who, instead of attempting to found systems, take facts as they are pre-

sented to them, and, sifting the false from the true, add continually to the beautiful proportions of the temple at which they worship. These men, with their co-laborers and followers, are the true workers, the patient toilers of the brain, who make progress in the world of science; the true explorers, who make valuable discoveries, and whose works shall never die.

I am not unmindful of the fact that here, in the opinion of some, I may have laid myself open to the charge of *scepticism*, which is so often preferred against medical men; a charge which is usually made in something like this form: "Physicians have always opposed improvement," or "have always fought against progress in the profession," — the accusers thus assuming that the changes and innovations which they advocate are improvements and progress. Assumptions without proof medical men do and should oppose. So often are they regaled with reported discoveries that have no foundation in truth, and so frequently are they invited to adopt systems which are destitute of adequate support, that it is not strange that they hesitate and carefully examine before receiving new facts in science. And it is their duty so to do; but this careful examination cannot fairly or with justice be called opposition. As truth is their aim, no men receive with more alacrity new facts when supported by proper evidence. Instead of "fighting against progress in medicine," it is our boast that medicine steadily makes progress; not, indeed, by innovations upon its fundamental principles, which we so often witness, but by the clearer effulgence which is poured upon those principles, — not in turning aside from or in obstructing the paths so long followed by the wise and good, but in clearing away such obstructions, and letting the light of truth into parts hitherto dark and concealed.

As our science is progressive, we do not find the medicine of to-day what it was one hundred years ago, or twenty-

five, or ten; and yet it is the same science. The artificial lines upon the great chart of medical science have been merely altered or advanced, as they are ever altering or advancing; but the great chart is still there. Theory has been exploded or become truth, and theory when proved true becomes fact. Truths before unknown and undreamed of are brought to light, and made available in alleviating and removing the distresses to which humanity is subject. Diseases which, a few years ago, were grouped together under one general name, have, by the patient labors of pathologists, been shown to be widely distinct; while those on the other hand which were not suspected of having a common origin, though widely varying in their phenomena, have been found to arise from the same organic or functional derangement of parts. As illustrating what is here said, reference may be had to the brilliant discoveries of Bell, of Lænnec, of Marshall Hall, and of Bright, to say nothing of the works of living men in our profession. And here let me say that the profession and its labors are not properly understood or appreciated by the public. That this is so is our misfortune; but, if in any degree we are the cause of its being so, it is our fault. The popular idea in regard to medicine is, that it is chiefly concerned in finding special remedies for special diseases; "that every disease has its cure, if it could be discovered." This idea we of course disclaim; and yet is it not in a measure the result of the teachings of physicians themselves? And was it not the principal aim of members of our profession, at no very remote period, to find *cures* for diseases? And do we not now hear every day men, who call themselves physicians, boast that they have infallible remedies for different complaints? And is it strange, if this be so, that the public should look upon medical men as a sober sort of venders of specifics, whose great aim and study is to find new and powerful remedies for the diseases which afflict humanity?

The truth is, the public look upon diseases as so many monsters, so many separate entities, which are to be destroyed or expelled by special drugs, instead of regarding them, as they are, "as merely modes of being and acting different from those which are proper to the state of health." Its philosophy of disease is much like that of Prof. Watson's coachman, who, when he had the *shakes*, took a stiff glass of brandy; and then, as he said, he "threw the *agy* off his stomach, and it looked for all the world like a lump of jelly." The whole world has for ages been trying to throw the *agy* off its stomach. And for this false philosophy, these erroneous notions, I fear that medical teachings are in no small degree responsible. Their influence for good or for evil is much greater than even medical men themselves are aware. From the time of the alchemists to the present day, there has been a continued hunt for special remedies to expel diseases; and to this false idea, once inculcated by medical teachers, may be traced, as to a fountain-head, the thousand and one nostrums that fill the world, as well as the many systems of quackery that abound and afflict mankind for a while, and then give place to others, — such as, in the present day, the systems of Thompson, of Mesmer, of Priessnitz, and Hahneman. To physicians themselves there must be attributed something of the origin of this false idea of their duty. Here the misfortune and the fault come together. It is believed, and not without show of reason, that medicine, as a science, is of comparatively modern growth; and that the early laborers in the field were mainly engaged in observing phenomena and gathering facts on which that science is founded. At all events, we are in advance of our predecessors of even a hundred years ago in regard to the duties of our profession; and perhaps the public of a hundred years hence may be up to our present standpoint. In the meantime, may it not be the duty, and ought it not to be the aim, of physicians to disabuse the masses of society

of this false notion of medicine as a science and as an art? I say an art, because it is quite the fashion at times to look down upon art in medicine as something separate from science and far beneath it. There is often, I fancy, a misapprehension of the true significance of the term *art*, at least when applied to medicine. Some seem to regard it as simply the drudgery of prescribing, and many as nothing higher than the skill acquired by long practice, independently of the scientific knowledge which controls and directs such skill; and it is to be regretted that there are so many who have assumed the name of physician, and who seem to practise upon this idea, just as other artisans ply their craft. And yet art in medicine is something higher and more difficult of acquisition than the mere trade of the artisan. "It is," as defined, "the application of high scientific knowledge to the practice of the profession," and is thus inseparable from science itself. Art a mere trade! Was not the genius of a Praxiteles, a Canova, or a Powers, who clothed the dead marble in almost breathing life and beauty, something greater, nobler, than the skill of the mechanic, who hammers his stone in daily routine, just as he has been taught? And so are the sublime results of the illustrious men of our profession of the present and past ages, when applied to the treatment of disease, something higher and nobler than the feats of the mere vender of drugs, who fills his prescription-book with recipes gathered from here and there and everywhere, just as the rag-picker fills his bag, and who dispenses them in routine for the sufficient reason that he has been told that they will do, or that it will pay. It is to such men as these last, that the term *tin peddler* has been, not inappropriately perhaps, applied; but whether to the discredit of the peddler, or of the "doctor," is not perhaps clearly apparent.

All professions have among their numbers those who, forgetting their duty, or losing sight of their true aim, are

influenced by motives inconsistent with the proper advancement of such professions. When the lawyer or statesman, leaving the course marked out by the illustrious men of the past, is led astray by a wild spirit of speculation, or, mistaking a blind partisan feeling for true statesmanship, engages in low intrigue for place and power; and when the clergyman, giving up the contemplation of truths the most awfully solemn and sublime that can engage the thoughts of man, mingles in the dirty, political strifes of the day, preferring a low position, as the tool of a party, to the commanding and exalted station of God's minister, they forfeit, and justly too, the respect and confidence of all considerate men: and can the physician, whose duties in his profession demand all his time and all the energies of his mind, desert his post to engage in outside pursuits and come off scathless? Ours perhaps, of the three learned professions, is as little liable to the charge of recreancy to duty as either of the others, and is as ardently engaged in its legitimate pursuits. We are proud to believe that the true physician,— and here we exclude the thousand and one who have taken up our calling upon any and every motive except the right one, and whose highest claim to recognition as physicians is the fact that they are called "doctors" — the true physician is to-day, amid all the allurements that surround him, as devotedly engaged in his proper duties as at any time in history, and with as good results. In our own country, where so many tempting avenues are opened to lure one from the straight course, it is no little credit to our profession that so few of its members seek for distinction in other pursuits. Having in our ranks as great an array of talent and learning, to say the least, as any profession, it is believed that a far less proportional number of its members engage in matters foreign to their legitimate business as physicians, — as, for instance, in political struggles or pecuniary speculation. And this, not because the rewards for his

labors are high or tempting to the physician. No; for the same expenditure of physical and intellectual strength, there are few who receive so small pecuniary compensation; and if any one designs entering the profession, at least in New Hampshire, for the sole purpose of making money, he had much better put the amount required for his preliminary studies into government bonds, and apprentice himself to some reputable wood-sawyer, or engage in any other honest business requiring hard and continued labor, and at the end of ten years he will find himself a younger man, and with more money in his pocket, than if he had toiled in fair weather and foul, among our hills, as a country physician. The solution of this matter is to be found, I think, in the nature of the physician's pursuit, the attractiveness of his studies, and the high gratification derived from combatting disease and relieving distress. And yet physicians are human beings, and there will at times, in the mind of the greatest devotee of science, arise thoughts of a pecuniary nature. When called, it may be, far away amid darkness and the storm, which drives all living things else to shelter, it would not be strange if one should think of the *reward* for his toil and exposure; or, when at early dawn he takes his way upon the errand of mercy over hill and dale, it need not excite wonder if all the romance of nature around him, or all the enthusiasm for his profession within, should fail to dispel the thought that perhaps, by this early visit, he may add something to the amount needed for the support of his hard-driven horse, or for the comfort of the patient and uncomplaining ones at home. The profession is seldom understood, or their works appreciated, by the world. It cannot believe that devotion to science, or love to their fellow-men, can prompt the physician to acts which, in other circumstances, would be considered noble and heroic. Men shout until they are hoarse at the mere mention of Cardigan's charge into the very jaws of death at Balaklava, but

listen unmoved to the fate of the poor student who, voluntarily, and for the good of his profession, shut himself up in the dead-house at Paris, to examine the remains of those who had fallen victims to a virulent, contagious disease, knowing well, when he entered, that he would never come out thence but as a corpse; or, at most, they drop a tear of pity for his infatuation or of sorrow for his loss. But "the three hundred" dropped down in death amid "all the pomp and circumstance of glorious war," while the student was but a victim to the shafts of "that pestilence which walketh in darkness," a martyr to the noble cause which he loved! And yet, to my mind, there was as much of true heroism in the self-immolation of this young student as in the daring charge of the whole battalion in the Russian fight. Again, the benevolent deeds of those who, out of their abundance, give largely for the founding or endowment of great institutions, are blazoned abroad, and all the world do them reverence; but many, *many* poor physicians devote annually a third of their time and toil to the gratuitous attendance upon the poor, and the world heeds it not. Indeed, so much is it a matter of course for the physician to *give* his services to the poor in certain cases, that the world expects it, and the finger of scorn is pointed at him who would withhold them. And who of us would have it otherwise? I am sure, not one.

There is in man a yearning for distinction; and, if he cannot become famous, he will often strive to become notorious. If he cannot build up, he will destroy. We see this exemplified in our profession, in the rise and fall of the many new schools of practice, as they are termed; and in the periodical announcement of certain specialties which come upon us annually with the influx of medical almanacs and other nuisances: all which, with some grains of truth for a foundation, are filled up with humbuggery and delusion, and are sure to perish in the end. I say "with

some grains of truth for a foundation," for all these systems have in them some truth which is worth heeding, just enough, perhaps, to make them appear plausible. Truth may be found even in error, by the diligent seeker — the cross of the Christian in the mosque of the Moslem. But because error clothes itself partially in the garments of truth, it by no means follows that we should receive the whole for the sake of the part. This would be paying much too high for its worth, particularly as in these cases the valuable part is generally stolen property. As it is the business of physicians sedulously to strive for the prevention, the alleviation, or the removal of disease, so it is right and it is their duty to avail themselves of the labors of all true investigators in science, and to make themselves masters of the facts thus brought to light; nay, to receive from and to communicate to each other any new fact that may be discovered: and this, I take it, is one of the primary objects of this Association. The apostolic injunction "to do good, and to communicate forget not," is, in its spirit, inscribed upon our Constitution. Ours is a liberal profession, and whatever that is valuable and known to one should be communicated to all for the benefit of science. Some practitioners there are, however, who are always *secret* (*reticent*, I believe, is the fashionable word), constitutionally so; called discreetly wise practitioners, who are careful never to divulge their hidden wisdom. They are men who are said never to show the inside of their minds. It is possible there is no inside to show; but no matter, so long as they make the world think there is, and that it is a deep one. We have met such men (but, I am happy to say, not in this Society); but have failed to discover that, aside from their assumed dignity, they were in advance of their generation, or that they displayed wisdom above other common mortals. In order to derive as much benefit as possible from intercourse with each other, allow me to urge the propriety of

forming local associations in those places and districts where it is practicable to be done. These associations should be held frequently, perhaps every week or fortnight, and questions of practical interest to the members should be freely canvassed and discussed. Such meetings, I am aware, are now held in some places within the limits of this Society; but their numbers should be increased until every regular physician has his name upon the rolls of some local society, and then see to it that he is ever present at its sittings. Such meetings cannot fail of doing good, in making professional men better acquainted with each other, in stimulating industry, and in bringing to light facts and cases which might otherwise have remained concealed with the observers. They might do more. They might have a tendency to remove that unfortunate jealousy of each other which exists in some places, but which should never have place among men engaged in a good and common cause. They might, I think, be made to operate as a check upon the charlatanism which is so rife, both in the profession and out of it, and to do away with the practice, not unfrequent, of medical men's visiting, under various pretexts, the dwellings of the sick who are under the care of brother practitioners, and by unworthy means recommending themselves and destroying confidence in the attending physician. Frequent meetings of physicians, where disorderly conduct of the kind referred to would be sure to be brought to notice, might either cause such men to amend their guilty practices, or would bring them into such deserved disrepute that their course would be harmless.

The true aim of the physician, then, is the elevation and advancement of medicine by laborious research in those paths which are known to be true; not being turned aside by the allurements of those false lights which so frequently serve to tempt him from his legitimate course by the specious promise of fame, or of pecuniary success. Success!

How many are beguiled by this phantom, which the mass of mankind mistake for power, and worship as a deity! "That success," says Victor Hugo, "is a hideous thing. Its counterfeit of merit deceives men. To the mass, success has almost the same appearance as supremacy. They confound the radiance of the stars of heaven with the radiation which a duck's foot makes in the mud." And Hilliard beautifully remarks, "Celestial graces do not best thrive and bloom in the hot blaze of worldly prosperity. Ill success sometimes arises from a superabundance of qualities in themselves good, from a conscience too sensitive, a taste too fastidious, a self-forgetfulness too romantic, a modesty too retiring. . . . . There are forms of greatness, or at least excellence, 'which die and make no sign.' There are martyrs that miss the palm, but not the stake, —heroes without the laurel, and conquerors without the triumph." Success is not in itself a proof of merit. I remember one who had attained a respectable rank in our profession, and who, after some dozen years' practice, said to me, "I have labored thus long for the advancement of medicine, and now I am about to work for myself. I am going to make money." He strove for pecuniary success, and I presume achieved it, for he became a specialist; but, a few years ago, was arrested under the charge of causing death by unlawfully producing abortion,—a charge which circumstances connected with his practice gave me too much reason for believing well founded. The true physician does not labor for success, as the word is commonly understood; and, when he does he is no longer the true physician. Indeed, it is a question of some doubt if a good physician can be a good financier. At any rate, it is a rare thing to find the two united. And well it may be so, as a study like ours requires all the time and all the ability which man is capable of bestowing upon it.

The field is so broad and the ground so inexhaustible

that there is need of every laborer, as there is room for every laborer, and a promise of rich reward to all who diligently work. What though it has been so often traversed? There is treasure yet, abundant and profitable; but it requires toil to obtain it. In truth, the very fact of its having been previously worked to advantage is the very best promise that it will still repay labor. For, as thought begets thought, so one discovery is the parent of another. It is by the aid of truths known, and by diligently and persistently revolving such truths in the mind, and by carrying them to their legitimate ends, that new facts are evolved, often of the most startling and unexpected character, rendering their discoverers famous and their labors a blessing to the world; while those who, in their blindness, will not see the truth, or in their heedlessness neglect it, cannot expect to reap the reward which is the meed of diligence. Many men had examined the inlets and outlets of the heart, and noticed the difference between black and red blood, before the days of Harvey, who, after years of thought and labor, gave to the world his wonderful discovery of the circulation of the blood. Many had noticed that milkmaids, whose hands drained the diseased udders of cows, were apt to have pustules upon their hands; but it was reserved for Jenner to discover the connection here existing with small-pox, and to bless mankind with the boon of vaccination: and many, as they thought, understood the anatomy and physiology of the cerebro-spinal nerves, and had witnessed abundant phenomena connected therewith, before Marshall Hall, after long-continued and patient research, gave to the world his beautiful theory of the reflex-motor system, which has had and is still having such important influence upon the practice of our profession. And yet we not unfrequently hear it said that this or that man is indebted to *circumstances* for his eminence, as if it were a matter entirely of hap-hazard. But is this so?

Circumstances never yet made a man, or, if they have, a poor tool has certainly been the result of such handiwork. No! men may make or take advantage of circumstances, but they are not made by them.

To make ourselves masters of the truths already known in medicine requires study, deep and persistent study. Mere reading without reflection, or taking on trust without consideration the published opinions of others, is not study. One may read much, and make himself so posted upon different medical subjects that his mind may become a storehouse of facts, real or assumed, and himself overwhelmed by the embarrassment of his riches; and yet he may fail to become a sound physician or a safe counsellor. By study, then, I would be understood to mean pondering upon what is brought to one's notice, and weighing it well in his mind. It is something more than mere attention and memory. It is that severe labor of the brain by which great thoughts are brought forth, that balancing and comparing of facts and theories, and carefully weighing their merits, by which new principles are developed and new truths evolved, and by which all true progress is made in science.

We are all, to some extent, students. Our business, and the exigencies in which we are at times placed, make us so, in spite of ourselves. But are we as faithful in this respect as we might be, or as duty to ourselves and to our profession requires us to be? I am aware that some in the community, and even in the profession, seem to consider it a mark of weakness to be called studious, or rather to look upon it as a proof of power to be able to practice medicine without study. But I believe that here we have little sympathy with any such. There is in these days no divine gift of healing, received by men without effort on their part. A habit of systematic study and of patient and careful observation, I scarcely need observe, is of the utmost importance to all of us; and to the younger members of the profession, if I may

be allowed to say so, it is of vital necessity, if they would advance properly in the career before them. However, it may be now there are certain diseases which, twenty-five years ago, did not receive that careful and discriminating attention which their frequency and importance deserved. There were few at that time, for instance — at least, where it was my lot to be — who paid much attention to the physical signs of disease, either from the belief that those outside of a hospital had not suitable facilities for acquiring a competent knowledge of such signs and their interpretations, or from — what I fear was in many cases true — an indisposition on the part of students themselves to make the effort to gain such knowledge. This state of things is, I hope, in a measure done away with; but, if any are disposed to neglect this matter in their younger days, they will permit me to warn them that ere long they will bitterly regret their folly. How often are mistakes in diagnosis made, mistakes of the most serious character, from want of knowledge in the physical examination of the chest! Many of us, and not infrequently, have seen chronic bronchitis and pleuritic effusion mistaken for phthisis pulmonalis; and, on the other hand, tubercular deposit accounted as simple, uncomplicated irritation of the bronchi. We have witnessed plain pneumonic inflammation diagnosed as consumption, and consumption as pneumonia; organic disease of the heart for phthisis or functional derangement of the stomach and liver, and, conversely, functional disorder of these organs for disease of the heart. In one case, a young man of much promise had been treated for many months for tubercular disease of the lungs, who was suffering from hypertrophy of the heart. At his death, this organ was found to weigh twenty-six ounces, while his lungs were free from tubercles. Many instances might be adduced of most grievous blunders made in this direction, were it considered in good taste, or appropriate to the place and occasion; and, as an illustration of many others, I can-

not refrain from briefly alluding to one case, which, by the kindness of Prof. Alonzo Clark, I was permitted to treat. A young man from a neighboring State had been treated for several months for consumption; no suspicion existing in the mind of his medical attendant, prior to Prof. Clark's seeing him, of his suffering from any other disease. He had cough, with abundant expectoration; was emaciated almost to a skeleton, bowed down and unable to take exercise, or even to walk to any amount. He had deranged bowels and scanty renal secretion. The physical signs, as I remember them, were some dullness under the right clavicle, and over the whole lower left side as high as the nipple. His respiration was somewhat puerile on the right side of the chest, and unheard on the lower left side. There were coarse mucous rales on both sides, except at the lower part of the left. This man had effusion into the left side of the chest. He recovered, moved West, and engaged in active mercantile business. This was thirteen years ago; and last autumn he visited me at my residence, having the appearance of being a stout, robust man, certainly not far gone in consumption, as his weight, taking his own word for it, was about two hundred pounds. Here was a mistake in diagnosis, which has not infrequently been made, and which required no very nice skill in the physical examination of the chest to detect. My apology, if indeed an apology is necessary, for alluding to the subject is the great interest I take in the matter, as well as its high importance; and my only design is to earnestly impress, if possible, upon the junior members of our profession, that it is well worth their while to labor diligently to get posted in the diagnosis of diseases of the chest, as well as of other diseases. They will find abundant opportunity to do so, if they will only seize the opportunity. Their advantages are far superior to those which we elders enjoyed in our youth; their teachers, not indeed abler nor more industrious, not more devoted to science than were

their predecessors,— I will not grant that, — but far better posted, from the facilities which they have enjoyed in certain principles of diagnosis and treatment, arising from the constant advancement made in a progressive science like ours. Their advantages are great, and their responsibilities are correspondingly great. May they avail themselves of the one, and be faithful to the other!

Fellows, we are all laborers in the same noble work; and let there be the emulation, the only emulation that there should be amongst us, to see who will accomplish the most, and in the best manner, while the day lasts. We would all rejoice, I am sure, to see our young men advance far beyond us in all that is good and praiseworthy, while they are careful to avoid anything that they have seen amiss in us; but we would remind them that we graybeards have some amount of campaigning in us yet, and do not mean to yield the fight while any vigor remains in us. We have all put on the harness, and mean to wear it while the battle of life lasts; and, when any one falls in the fight, may God grant that a younger, an abler, and a better champion may take his place to battle for the truth. And thus may the cause of medical science ever make progress in the world!

Fellows, thanking you most heartily for the uniform courtesy and kindness which I have received at your hands, as well as for the forbearance which you have exercised towards me, I beg leave now to retire, and to resume my place as a willing laborer in the ranks.

MEDICAL DIAGNOSIS.

BY J. N. WHEELER, M.D., DOVER, N.H.

Mr. President and Fellows of the New Hampshire Medical Society: —

THERE is no vocation of man involving greater responsibility than that of a physician: I except none. In making this statement, I am aware that I am taking high ground, and that there are others claiming their superiority — one, that profession known as the ministerial; another, as the legal.

While we would reverently acknowledge the claims of our holy religion upon us, individually and collectively, and while we would acknowledge our duties to our fellow-men and to the "powers that be," we must still claim that there is no position to which man is called alone where greater and more undivided responsibility is imposed than in the duties of a physician.

If life is sacred, if the highest penalty inflicted upon man on earth is for the taking of the life of man, is not that calling which daily deals with such life, in its responsibilities, equal to, if not above, all others? I know that the clergyman will tell you that it is not with the bodies, but with the souls of men, he has to do; not alone with the mortal which perisheth, but with the immortal which lives forever. Granting him all this, still he holds not such undivided power over any to whom he ministers as does the

physician over every patient committed to his care. Does he minister to his fellow-man from the sacred desk with a tongue touched even with the fires of inspiration, still he holds no absolute power over his listener! After all, the man must *think* and *will* and *act* for himself, no matter if an angel preached!

Not so with the physician. He holds in his own grasp the life of his prostrate, impotent, dying patient. If he ministers to him properly, he lives; if improperly, he dies. Thus into his care is entrusted the gravest responsibility permitted to man.

We might speak of this matter further; we might mention the auxiliary the clergyman has in the Bible, the word of God, given unto every man, so plain that the wayfaring man, though a fool, need not err therein,—a Revelation of his science, the like of which the physician has not. But of this our purpose does not admit.

Of the other profession alluded to, it has to do more with the rights of men than with their lives; and, when called to deal with the life of man, no single individual is entrusted with this grave responsibility; but the highest talent is summoned for an impartial trial, and then the solemn charge is submitted to the judgment of twelve picked men. To be sure, this is to decide whether life shall absolutely be taken or not. But does not the life of the patient often rest, under God, in the hand of the physician? Is it not for him to say, so far as human agency is permitted,—does it not really depend on his wisdom,—whether he shall live or not?

Now, it is not to inappreciate or irreverently to speak of the sacred calling instituted by our divine Lord and Master, or to undervalue the practice of law, that I have thus spoken; but rather to elevate into its true dignity the practice of medicine, and to impress us with the greatness of the responsibility we take upon ourselves in engaging in the vocation of a physician.

If all this be true, how important is it that we be thoroughly prepared for the sacred duties of our profession!

It is to the consideration of the *first* necessity in this preparation that I invite your attention; namely, the value of a correct diagnosis.

The first duty a physician has to perform to his patient is to recognize his malady, and to distinguish it from all other affections. Until he has done this, he can make no intelligent progress in the management of the case. To do this is not always easy; and this leads me to consider some of the elements essential to a correct diagnosis.

In the first place, I would remark, that the physician who would be skillful in diagnosis must have a thorough knowledge of his profession. He must be well informed in all departments of his science, and with collateral sciences, as well as with not a little that is of a more general nature. He must be thorough in his anatomy, that he may be able to locate his affection. He must understand physiology, that he may know what is natural and what is abnormal in function. Above all, he must be a pathologist, in the full sense of the term. With the signs and symptoms of diseases he must be familiar. He must be acquainted with their natural history, and the general laws governing them. He must know their antagonism, the frequency with which they co-exist, and the effect of remedial agents upon them. He must understand the influence of age, of sex, of habit, temperament, climate, season, education, past history, the laws of sympathy and of hereditary tendency. The wonders of the nervous system must be his constant study, and chemistry must shed its latest beams on his pathway. All this, and more too, is essential to him who would be a skilful diagnostician.

Again, for one to be a correct diagnostician, he must also be a good observer. Not every individual that has knowledge knows how to use it. "The ability accurately to

discriminate disease," says McLeod, "is doubtless to some extent a natural endowment, which is not bestowed on all alike; yet there is no reason to suppose but that, by education and practice, this faculty can be greatly developed and improved." All, indeed, are not equally endowed. Skill by most of us is obtained only by practice and long experience; and this practice and experience imply the use of all the senses, and these educated to the highest degree. The physician must not only know when to hear, but how to hear, and how to interpret what he hears. He must not only know where to touch, but how to touch, and how to interpret the sounds he may elicit by his touch. He must be able to recognize the change of form and of color, to know how to read the countenance, how to interpret the position of the body, and how to understand the cries and groans even, of his patient. It is not enough that he can distinguish between the differences of sound, or that he appreciate degrees in the sense of touch, or that the eye takes in the general aspect of the patient; all this the merest tyro can do, or he who knows naught of our art. But, as the cultivated musician can discern the slightest discord in all the great chorus of sounds, and can place his hand on the very instrument whence it comes; as the blind child, by the delicacy of his touch, can distinguish one color from another,—so must the accomplished diagnostician, by cultivation, by long and tried experience, be able to discover the most delicate variations in sound, and to tell whence and why these variations; to know by his touch whether he feels that which is benign, or that which is malignant.

But not to the unaided senses alone must he trust, much as they can give him. He must avail himself of all that ingenuity and art have done to aid him in his difficult task. He must understand the microscope, and know something of the world of wonders it reveals. He must be able to use intelligently the stethoscope, the pleximeter, the uri-

nometer, the test-tube, the speculum, the sound, the laryngoscope, and last, but not least, the thermometer. All of these, and more too, must enter into his daily labor.

But, after he has brought to bear on the case all the light of anatomy, physiology, and pathology; after the unaided senses have done their utmost, the microscope unraveled the tissues, chemical agents reduced to their elements the various products of the body, acoustics laid open to the understanding that which the eye cannot penetrate, and which until recent times was utterly unknown, and the patient, by the aid of science, made transparent, as it were, —still the work is far from being accomplished. It is now that another element, and the highest, comes into action. The skillful diagnostician must know how to reason. Otherwise the act of diagnosis is reduced to a mere act of memory. Having obtained all the facts, he must know how to use them. They must be properly classified. Right premises must be established before he can obtain right conclusions. In the words of another, "There must be a truthful mind, which takes a just and unexaggerated view of things; sound judgment which seizes upon, weighs, and compares those features in the case which are characteristic and of value, and excludes those only which are unimportant; clear reasoning powers, to draw just and logical conclusions without bias; and, lastly, patience to unravel and and often to wait the development of the phenomena. In the process of reasoning, to obtain a diagnosis, the same laws apply as in reasoning upon any other class of phenomena; the mental process is the same."

It is in this last element that the superiority of one physician over another is most often found. It is in this very analysis of symptoms, and the lengthy process of induction attending it, that the real skill of the diagnostician is seen. He who knows best how to reason will know best how to interpret signs, and will be the best diagnostician.

There is still another element which might be mentioned, and which, under judicious control, is a very important one in diagnosis. I refer to independence of judgment. Perfect unity in the manifestations of disease is not always to be found. There are times when the physician cannot classify the malady he is called to treat, and he is obliged to stand alone, finding no companion in all the ages of the past. Now it is that this quality of mind, independence of judgment, is called for, if he would be untrammeled and succeed in his diagnosis. This very want of the freedom of judgment has been an obstacle to the progress of our science. Too much have the sons been wedded to the opinions of the fathers; too much have they delved amid the ruins of Hippocrates and of Galen. More of the spirit of Vesalius is needed, of the bold yet assured Vesalius, who, "even among physicians, was almost the first modern who comprehended that anatomy was contained in the interior of the body, and not shut up in the parchment pages of old volumes; and, with every respect for the authority of Galen, and due admiration for all that the great masters of antiquity had done, still felt that, with Nature's book before him, there was a constant tribunal to which they could both appeal, and, in cases where he could not reconcile the two, instead of holding to Galen and distrusting Nature, relied upon Nature, and left Galen to take care of himself."

In passing, I cannot refrain from asking you to look with me at the picture of the great Belgian anatomist preparing to engage in his dissections, so graphically drawn by another: "He is alone in an upper room, lighted through the half-closed shutters of an attic window. On one side is the old folio of anatomy, whose pages he has turned so often, and whose statements he is now about to verify or correct; in the other are the implements of his work, placed ready to his hand; before him is stretched the subject which he is about to examine, and, as Vesalius with one hand feels

the bony prominences which are to guide him in his incisions, and with the other reaches out to grasp the handle of his scalpel, his eye rests upon the crucifix above the table with a mingled expression of reverence and determination. He does not disregard the injunctions of religion, but he disregards the interpretation which others have given it; and, with every feeling of respect for its spirit and commands, he throws himself thoroughly and confidently upon his own interpretation as the last and surest guide for him to follow."

This same spirit which he so nobly showed in the sixteenth century, we must have in the nineteenth. Our science is the growth of ages, and only by possessing the spirit which will recognize truth rather than precept can we expect to continue the progress. Had our science been revealed, then it would have been complete; but it pleased our Creator to make man the student of his own constitution, of his own diseases, and to bid him search abroad in nature, and seek in the developments of science for whatever can serve as remedies for his ills.

I have thus endeavored to intimate some of the elements that must enter more or less into every process of diagnosis, and this process stands at the very threshold of our inquiries concerning every disease, be it slight or the gravest of the grave. We unhesitatingly affirm that without a correct diagnosis there can be no intelligent treatment of disease. The physician who fails to appreciate the nature of the affection he is called to treat is forced to the alternative of dealing with symptoms alone, and thus his practice becomes mere empiricism. As well might the mariner expect to reach the desired haven in safety by taking his course simply from the flapping of his sails, without any knowledge of compass, currents, observations, or navigation whatever, as for the physician to expect to guide his patient safely through the storm of disease to the haven of health who

knows nothing of the nature of the malady he is called to treat, and relies solely upon symptoms. To change the figure, he must know the nature of his enemy; he must know his secret workings, his sorties, all his strategic movements, if he would be the conqueror and bear the palm of victory.

We would not, however, claim that a diagnosis can always be made out at once, at least if it can be at all. We are well aware of the many and great obstacles that frequently stand in our pathway. Much as has been accomplished, much more remains to be accomplished. The lights of the other sciences must be made by the physician to find their focus in his science. All knowledge must be brought to shed its benignant beams on man, that the penalty of sin, so far as may be in this world, may be lifted from him.

I repeat, knowledge, skill in observing, sound reasoning abilities, and freedom of judgment, are elements that every diagnostician must possess; without these he is incompetent for his work, he is unfit to be entrusted with the great responsibilities of a physician.

My brothers, when one of our families, or we ourselves, are made to feel the blighting curse of disease, and life and death are placed in the balances, is it not of the most transcendent importance to us that he who is to put into the scale, though never so small be it, the atom which is to determine, under God, which beam shall rise or fall, should be thoroughly qualified to diagnose the malady, lest perchance death should take the place of life, and hearts that ought to have leaped with joy be filled with the deepest sorrow?

Gentlemen of the New Hampshire Medical Society, would that I could stimulate you to direct your attention most attentively to the true diagnosis of disease; not to satisfy the foolish curiosity of those who become assured of the skill of a physician when he gives to every disease a ready

name, be it right or wrong, but that our practice might be benefited; that we might be made less officious; that, instead of drugs, patience might be the means; instead of art, nature might be the power to restore?

Thus doing, we shall have to write less often against the name of our patient, in our memorandum-books, the word "fatal"; thus doing, less often shall we have the bitter reflections that crowd the brain so often of the conscientious physician, past the midnight hour; thus doing, more often shall we have the benedictions of the restored, of an approving conscience, and of an approving God.

MEDICAL EDUCATION.

AN ORATION

BY L. B. HOW, A.M., M.D., MANCHESTER.

THE great importance of the subject must be my excuse for calling your attention at this time to a topic upon which so much has already been well said. But, as very much yet remains to be accomplished before our system of medical education will be as perfect as it ought to be and might be, and as, furthermore, there is some difference of opinion among us as to how the desired changes should be effected and improvements introduced, doubtless very much more must be said before very much more is done.

Our present effective system of common-school and collegiate education attained its present degree of comparative perfection only after the earnest and unremitting efforts and even angry discussions of its devoted friends; and it seems likely that rivulets of ink must flow yet before the powerful arguments of such scholars as Herbert Spencer and Gladstone will have their due influence upon the trustees of our academies and colleges, in making them realize that the practical is of greater value than the theoretical and the ornamental; that more time should be spared in our college curriculum for the study of the natural sciences; that chemistry, upon knowledge of whose unvarying laws man is every year more and more dependent for even his daily bread, and to whose inexorable decrees our bodies are subject from the first moment of their inception till

they crumble back to dust; that anatomy and physiology, which reveal to us the unspeakably wonderful structure of our bodies, and teach us the functions of all these members that minister to the wants of our immortal minds; that hygiene, which teaches us how to preserve our health amid all the vicissitudes and dangers to which we are exposed from heat and cold, from pestilence and hurtful appetites, and shows us how this "harp of a thousand strings" may be kept in tune even longer than it is,— that these sciences, which are so intimately connected with all we do and all we are, are of vastly greater importance to us than all the amours of all the gods and goddesses of all heathen mythology. I would not underrate those studies that tend to polish and adorn. No, let the hill of science be strewed with flowers, and let us cull a few as we climb; but let us not so overload ourselves with flowers that we have no time to gather up, and no place to carry, the golden grains of truth that Nature has so lavishly strewed in our way. When the storms of life arise, the flowers will fall from our arms one after another, and be forgotten: but the truths of practical science will abide; yea, they will even shield us from the tempest, and help us on our way.

When the time arrives wherein the natural sciences shall assume their proper prominent position in our system of education, our medical lecturers will be spared the trouble of teaching the fundamental principles of natural philosophy and chemistry, and they can then devote more attention to the practical facts of medical science. Then, too, when scientific knowledge shall be more widely diffused, people will see more clearly that medicine is a *science*, and that those who practise it ought to be scientific men; and they will no longer employ the followers of those systems whose only basis is a fine-spun theory, and much less will they imperil their lives by intrusting them to the host of quacks of various names who are supposed to be supernaturally endowed with healing power.

As in university education, so especially in medical, do we want as much as possible of the practical, and as little as possible of the theoretical. From our professors of theory and practice, we want much practice and little theory. The lecturer who devotes ten lectures out of a hundred to a consideration of the nature of inflammation not only runs a great risk of completely confounding the minds of his class, but wastes valuable time that had better have been devoted to the diagnosis and treatment of pneumonia. The numberless theories about the nature of inflammation, and the complete muddle they make of the whole subject, remind one forcibly of the Schleswig-Holstein question, which only one man ever thoroughly comprehended, and he died before he could impart his knowledge to any one else. I am also reminded of the professor who devoted three quarters of the hour he was to give to the whole subject of dyspepsia to an elaborate discussion of the various theories about the origin of gas in the alimentary canal, and who finally concluded the gas "did not arise from decomposition or chemical changes, but that it was secreted by the solitary glands, although there was room for some doubt about it." After the lecture, the students held a meeting, and made a unanimous diagnosis of the professor's condition, to the effect that his alimentary canal took a turn through his cranium, and that he was vastly troubled with flatulence.

But I do not propose on this occasion to occupy your time so much with a consideration of the great importance of the practical when compared with the theoretical, as with a discussion of the best way in which practical knowledge can be best imparted and acquired. The problem is to provide the public with physicians as thoroughly trained as possible, and prepared to the utmost for every emergency.

To illustrate some of the defects of the present system, and show how unreliable a guide to the seeker after a good

physician the letters M. D. written after a man's name *may* be, let us briefly follow the course of a young man from the time he first becomes possessed of a desire to study medicine till he sallies out into the world with that formidable weapon, a diploma, potent for good or ill.

Sam Bucus is the son of a farmer in very moderate circumstances. He graduated at the district school, without any knowledge of the dead languages, and with a very limited knowledge of any living one. He never intended to be anything but a farmer, till one day his father had an attack of colic and sent for the nearest doctor, who came five miles to see him, put a little morphine on his tongue, which very soon relieved him, charged one dollar and a quarter (the money to be considered due on the first of the next January, eleven months distant), and went his way. Sam thought this was earning money easily, and visions of numberless dollars, horses and gigs, medicine cases and "M. D.'s," so disturbed the quiet of his dreams that he decided to study medicine. His parents were pleased with the idea of having their son called "doctor," and allowed him three hundred dollars with which to get a complete education and an establishment in business. Sam applied to Dr. Physic, and was promptly accepted. The doctor knew his education was, like that of a boarding-school miss, *finished* at a very early age, and that he was much further from the upper than the lower end of his class; but he was pleased with the idea of having a student, and, besides, he would be so useful about taking care of his office and horse, and making out, and trying to collect, his bills. Sam had the free range of the doctor's library of ten volumes of all sizes, and he roved at will through them all. Obstetrics was his favorite department at first, then surgery. He read some of Abernethy's lectures, perused an old copy of the Dispensatory, and even attempted Paine's Institutes. He rode with the doctor, and saw a few cases, and heard him tell

nearly all his stories (which is saying considerable), and he mixed up some medicines of whose properties he was ignorant, and made of them some powders for — he did not know what. He had considerable experience in trying to collect bills, however, and would fain have returned to the plow, but pride forbade. The doctor never questioned him about what he read, and never gave him any systematic instruction. There was an old work on anatomy in the library, which the doctor told him he had better read carefully, but that he must not expect to learn much about anatomy till he attended lectures. Moreover, had he been told of the great importance of anatomy and desired to study it, there was not a skeleton in the village. But at length the time to study it came. At the end of a year and a half he went to a country medical college, and here, for the first time, it began to dawn on his mind that he knew as yet *nothing;* that he had begun wrong, and wasted much time. He attended every lecture, took some notes on osteology, and tried to on chemistry, but he couldn't spell the new terms, and had no definite idea of their meaning if he could, so many of them were "all Latin" to him. He dissected one side of the head and neck, or rather he haggled them, and saw the carotid artery, the trachea, &c. He hunted around and found them as children find towns and rivers on a map, but he never tried to imprint on his memory an exact picture of all the objects he saw in all their relations. He had very little time for dissecting after attending six lectures a day, and he received little assistance in the dissecting-room. When the demonstrator came around, which was but seldom, and asked if he could show him any, Sam could seldom think of anything at that particular instant that he wanted to inquire about; and there was no daily quiz. The professor of anatomy sometimes spent five minutes before his lecture in asking a few questions of the class as a whole, and Sam attempted to answer one, but he

had never answered one on any medical subject before in his life, and he was so much frightened at the sound of his own voice that he could never muster up courage enough to try again.

But, although Sam went home with very little knowledge of anatomy and physiology, and a very confused idea of chemistry, and some very erroneous ideas of practice and surgery, he learned one thing of importance,—that he must study very hard to graduate in a year and a half. And he set out to do it; but he had no habits of study formed, and he had so many erroneous ideas to unlearn that he made very slow progress until he came to his second course of lectures toward the end of his three years. He now worked day and night almost, and at last, when the dread ordeal came, he was pale and thin, with a rapid pulse, and every other symptom of a commencing fever. He was found to be deficient in almost every department of medical science. His knowledge of chemistry amounted to just about nothing at all, and he was far from proficient in even anatomy and physiology. He couldn't quite make up his time either, not within two months, but the present examination was a little nearer the end of his three years than the next one.

In summing up, the faculty had the following considerations to influence them: On one side, a very deficient preparation for the examination, with only about two years and ten months of time, and a very poorly written, misspelled and unpunctuated thesis on typhoid fever, with "typhoid" spelled with an *f* in several places; on the other, an excellent character, a desire to do about right, a possibility that he will not hurt anybody, fifteen or twenty dollars for a diploma, and symptoms of typhoid fever, with the probability of his having it if he is rejected,—several arguments on one side, and only two or three on the other. Can there be much doubt about the verdict?

So Sam Bucus blossoms out an M. D. He won't inten-

tionally poison anybody, and very few will take the trouble to cut him up or down; he will be in some thinly settled country place, and will by and by be *berried* and gathered to his fathers.

That is one view to take of the subject; but there is another. He stands where somebody of more sterling worth, of greater value to the community, might stand to bless and save. Think of the golden opportunities to relieve suffering, prolong and save life, he is losing! A little knowledge of anatomy, and that artery might have been tied and a life saved; a little—only a little—more skill in treatment, and that only child might have been restored, and a broken-hearted mother spared from weeping unreconciled through a lonely life; a little stimulus at the right time in that fever, and that loved pastor, "who lured to brighter worlds and led the way," might have had more "stars in his future crown of rejoicing"; only a little support, and that mother might have been spared to bring up her little children in the paths of virtue and peace. Oh, how the chances unimproved overshadow all the good he does!

One illustration more. Asa Fœtida is the son of a merchant in affluent circumstances. He receives a liberal education, which amounts in his case to just this: He "flunks" and "fizzles" and carouses all the way through college, and several times narrowly escapes being expelled, but at last receives the degree of A. B.,—supposed, in his case, to be a bit of irony, as he was never known to be a busy bee about anything useful, or else to mean a drone. He must study a profession. The ministry is out of the question, and there are too many ready tests of a good lawyer. So medicine is chosen, and Asa enters his name with Dr. Lubin, and pays him a hundred dollars a year for the use of his name. The doctor advises him to spend his whole time in New York, to attend all the lectures he can,

and to see all he can at the hospitals; and Asa takes out all the tickets. He also takes out all the tickets to all the operas and theatres. He attends lectures occasionally, and diverts himself by throwing orange-peel and spit-balls at the more industrious country students present; and, as soon as the lecturer says his last word, he takes out his meerschaum, and smokes till a little after the next lecturer comes in. He goes to the hospitals mechanically, hoping to see some great operation; or, perhaps, from a desire to gratify a morbid curiosity. He dissects every winter,—i.e., he pays for a large amount of dissecting material, which he cuts into a very little now and then, but somehow it always decomposes, and is removed by the janitor before he gets the muscles half dissected out. He is so very busy in "seeing all he can," at the clinics and hospitals and theatres and brothels, that he doesn't get any time to study. Thus he drifts along till he is on the very brink of an examination. Then he gets frightened and hires some young physician to post him up and quiz him. Asa writes to Dr. Lubin for a certficate of good moral character, and Dr. Lubin gives a carefully worded, perfumed note to the extent required, for he thinks it isn't possible that Asa *can* have any more wild oats to sow. The faculty sum up his case at last somehow thus: On the *contra* side, an almost complete failure before all the professors, except Dr. Smiley, who always writes "excellent," in italics, against every candidate: on the *pro* side, a well-written essay (liberally corrected by the tutor aforesaid); three full sets of tickets at "our college," with hospital tickets and dissecting tickets in abundance; the degree of A. B.; is one of Dr. Lubin's numerous students; is a very genteel-looking young man; and "How many students will they be likely to graduate at the Eleventeenth-street school this year? Ar'n't we a little short of our usual number? They would pass him quick enough at Eleventeenth-street; why should *we* be so very particular?"

So Asa receives another degree, and goes out to prey on the community. The same recklessness which formed so prominent a feature of his student life now characterizes his professional career. How he blunders in diagnosis; how he doses; how he cuts and slashes; how utterly he ignores all professional obligations! He cauterizes the healthy os—when it belongs to a wealthy patient; for a good sum, he is even ready to prevent families from becoming unfashionably large; he inculcates the idea that liquor and tobacco are conducive to health; he makes a perfect bagnio of his office. Now, isn't Asa a stench in the nostrils of all upright physicians, and oughtn't he to be ignored by the community at large?

"But these cases of Sam's and Asa's are great exceptions to the general rule." Thanks to the intelligence and moral worth of our noble profession, they are. But can't every one of us think of more than one like case? Can't we think of several like the former? Such men get into the profession, and then they help others in.

Now, where does the responsibility for this state of things belong? I answer, in the first place, the *greater* part of it *rests heavily* on you and I, private members of the profession. We encourage incompetent men to enter upon the study of medicine; we take students into our offices who have not any qualifications, either natural or acquired, for the practice of a profession which demands the best intellects of the best men; we take their money, or their services, and then neglect them; we almost do our best to keep them in ignorance; we never give them any systematic instruction; we don't trouble ourselves to find out whether they really understand what they chance to read; we don't set them a good example of studious habits and a diligent improvement of time; we too often rather imply, by our silence or our example, that the essential qualifications for success in practice are brass and ass, rather than brains and industry.

Now we must change all this. We must either take no students, or we must do justice by them. We must see that they have the best books, and that they study them, and we must quiz them thoroughly and persistently. The incompetent, the lazy, the unscrupulous and the lecherous we must refuse at the outset, or, afterward, as soon as they are found out. Let all the fools and knaves be quacks! When we do this, we shall see our profession advancing with mighty strides toward the high position it ought to assume. Then will it receive universal respect, and we shall desire no higher eulogium to be engraved on the shaft that marks our last resting-place than a parenthesis after our names containing the letters M. D.

But, in the second place, a part of the responsibility for the present unsatisfactory condition of affairs belongs to the faculties of our medical colleges. Some of their short-comings have been already broadly hinted at, and more will be further on. I do not feel that it is right to merely censure, when they have done and are doing for the common cause so much that merits great praise. They have been, and some of them are now, too lax in their examinations: but the temptation is great, and excuses can be readily found, such as the need of funds; the rivalry of schools; a desire to have large classes that the income of the college may be greater and more complete advantages afforded; and the importunities of those who send students. When Sam Bucus was about to come up for examination, his instructor wrote to a member of the faculty to the following effect: "Sam's moral character is above the suspicion of reproach. He is perhaps rather weak in the upper story, for he has had very few advantages, but he is working very hard now. If you pass him, he intends to settle on the top of Mt. Jefferson, where he will work into practice very gradually, and will have time to study and make up for the past; and I should feel very sorry to hear of his failing to get a degree. [Signed] RUSTICUS, M. D."

When Asa was about to graduate, Dr. Lubin wrote to an influential member of the faculty thus: —

"MY VERY DEAR DOCTOR: —

"The student of mine, Asa, who is to come up for examination this spring, belongs to a wealthy and very proud-spirited family, and they are exceedingly desirous he should succeed. They do not intend to let him practise medicine; but, if he should decide to, he will go to Europe for two or three years first. Asa is one of those who learn more from observation than from books. Very possibly he will not pass a very superior examination in minute anatomy, &c.; but he has seen a great deal of practice, and will profit thereby. I am very anxious he should pass. I believe the other students I have sent have generally done well. I have three more to send next winter.

"Very sincerely yours,

"LUBIN, A. M., M. D.,

"Member of the Academy of Medicine, Corresponding Member of the Society of Odds and Ends at Rome, &c., &c."

Now physicians are naturally accommodating; and when they get to be professors in medical colleges, they do not entirely change their dispositions. So we must be charitable in our criticisms; but we should be firm for the right. During the war, there was a great demand for young men in the army, and there was some excuse for graduating all who could pass a fair examination; but, now that the profession is over-crowded, there is a good excuse for severity in examining. Were the number of physicians one fourth less, the public would be one fourth better served. Then, too, the inducement to young men of talent to enter the profession would be greater than it is now, when it is very evident that there is a great opportunity for hard study for poor pay. The opportunity for doing good is as great as ever, to be sure, but even the missionary expects a salary large enough to live on.

At all our medical colleges there ought to be a preliminary examination, and no student should receive a ticket till he has passed a good examination in penmanship, spelling, and natural philosophy, and has shown that he is familiar with at least the declensions of the Latin languages. That would do very well to begin with, but the prerequisites ought, ere long, to include an amount of knowledge and mental discipline equal to that imparted by our best academies. I do not forget that Velpeau was once a blacksmith, and that other great surgeons and renowned physicians have received their early education in even the humblest employments; but that can be no excuse for admitting men of untutored minds into our profession at once. If they are really capable, they can easily fit themselves for an examination.

We must highly commend our medical faculties for one thing, — for the readiness with which they have generally responded to the calls of the profession for the adoption of improvements. At the suggestion of the American Medical Association, many of them sent delegates to a general convention to discuss the present system of education and recommend changes where necessary. Some of the improvements suggested ought to be adopted at once, while others, it seems to me, are of very doubtful value. One resolution is to the effect that every student should study four years before being examined for a degree. This is just right in part, and very wrong in part. There is no sense whatever in requiring the young man who has received the benefit of a college education to study as long as one whose educational advantages have been very limited. The former is familiar with the Latin and Greek languages, has studied natural philosophy and chemistry, and, very likely, analytical chemistry and botany; and if, with these and his four years of severe mental discipline, he cannot learn as much in three years as the latter can in four, he must be too

utterly devoid of brains to be ever admitted to the practice of medicine on any consideration whatever. By all means let the time be lengthened, but let the time speedily come when justice shall be done those who have spent so much time and money and toil at college.

"But," say advocates of the present system, "the A. B. now comes out ahead of the non-graduate in the end; he is all the better qualified to practise, and will succeed better in the long run." I cannot see any force in the argument. It would be just as reasonable to tell a boy who is ready to enter the Sophomore class that he must go back, and go through the academy again, in order that he may stand higher in college. Put him where he belongs, and he will stand as high as he deserves. It has been suggested that the best way would be to devise a uniform standard of examination, and then let the student pass when he can. This would not be practicable at present in the academical, and it would be about as difficult an arrangement to effect in the medical departments of our colleges.

Another suggestion is, that each student be required to attend three full courses of lectures. If he is to be required to *pay* for three courses, objection should be made on the score of expense. A thorough medical education costs enormously now, especially when we take into account the subsequent pecuniary recompense the student is to receive. If the third course is to be free, as now, there can be no great objection.

Still another suggestion is, that the course of lectures should be six months instead of four. This is wise. Four lectures a day is as many as any ordinary student can attend to advantage.

Thirdly, the responsibility for the present imperfect system of medical education rests on the public at large. This is not the place to consider the duty of the public to encourage learning and science by patronizing only regular physi-

cians, and I will only speak of one aspect of this question which has never been sufficiently agitated. I mean the duty of the State to liberally endow our medical colleges. When I say the *State*, I use the term generically, and not specifically of this State; for it can hardly be expected at present that a State which has pursued such an incomparably mean course toward its institutions of learning will do anything for its only medical institution. Other States have found it greatly to their advantage to liberally endow their universities and colleges; and Michigan (all honor to her!) has provided liberally for medical education. Theological institutes are liberally endowed by private beneficence; and why should not medical colleges be provided with every facility for affording better instruction at lower rates, especially to the indigent? We hear now and then of physicians, who have obtained fortunes by inheritance or marriage, dying and leaving large sums for various educational and charitable purposes, but never for medical institutions. Why should this be so? Why cannot somebody at least endow a scholarship or two in our own State school, so that some worthy young man, who is now kept back by poverty, may come forward and receive the benefit of an education? The profession of the State ought, at least, to see that it is more liberally sustained and perfectly provided with facilities for instruction. There must be wealth enough among us for that. Such a gift survives to bless long after the giver has passed away to his reward. Future generations would bless him, and his memory would be fragrant forever.

I say this on my own responsibility, without any suggestion from anybody, and solely in the interest of education, and from a heart-felt desire that sound learning and scientific knowledge may be more widely diffused. The more liberally endowed a college is, the more numerous and the abler will be the faculty employed. Self-interest would secure this.

Now a few words as to what course a student should pursue in order that he may improve his time to the best advantage. The preliminary education having been completed, he should first study anatomy,— the importance of which, as the very foundation of the whole superstructure, I need not here dwell upon. It is a great mistake to put into a beginner's hands a large work like Gray's, there being very much more in it than any ordinary student can comprehend during his first course on anatomy. Let him first master Leidy, and then take a more elaborate treatise. Gray or Sharpey and Quain should be at hand for reference, and, in the department of histology, Peaslee, which is still the most concise and complete work on the subject. Virchow's Pathology may be studied later. Cytology should be studied first, and the student should become familiar with the appearance of cells of various kinds, both vegetable and animal, as seen under the microscope, if possible. Next comes osteology ; and this I teach as follows : While reciting the lesson of the day, the student is allowed to have the bones before him ; but, while reviewing the same the next day, the bones must be out of sight, and he is expected to give a systematic and accurate description from the picture of the bone in his mind.

So in the other departments ; I demonstrate a group of muscles, it may be, to-day, and to-morrow I expect the student to describe the same before the subject is uncovered. I do not believe one can study or teach anatomy in the most advantageous manner, without a systematic daily quiz, and a weekly review added to that, if possible. Of course, the instructor should never have a book in his hand to ask questions from, either in this department or any other, since that detracts from the interest of the recitation, and conveys to the student the idea that the subject cannot be a very important one if the teacher has never taken pains to master it. Every student should go over the whole

of anatomy *twice*, *thoroughly*, and the minute anatomy of every part should be carefully studied; for I am more and more convinced that this is of great practical importance, and that the student who understands it will learn pathology, and then practice, in a much less time than he who passes it by for something more easily learned. Then physiology and chemistry should engross his attention, and these three will occupy at least fifteen months, or, better, sixteen. Next come pathology and materia medica; and, while studying the latter, the student should be drilled in writing prescriptions. How very few there are, even among regular physicians, who write a legible prescription in good Latin! This is because we don't begin right at the first. I saw a prescription of a Boston physician the other day, which a good apothecary and myself were some little time in deciphering. It was written in poor Latin, greatly abbreviated, in a slovenly hand, and the characters for drachms and ounces were almost precisely alike. Now there is no shadow of excuse whatever for this culpable laziness, since anybody can learn in a very few hours how to write a correct prescription. Let our prescriptions be one additional distinction between us and the quacks. They should be written with ink when possible, in an unmistakable hand, and if a man cannot make the characters for ounces, drachms, &c., *very* plainly, he may put *oz.* and *drs.* in their stead. Then, if any mistake is made, he can have nothing to regret. Isn't it a wonder that apothecaries make so few mistakes? I believe they do make more than we know of, and that a part of our non-success can be attributed to this cause. "But why not write in English?" Because the names of all our remedies are Latin, because it isn't always best for patients to know just what they are taking, and because those who attempt to write English prescriptions succeed very poorly at it. The attempt results in a very bad mixture of the two languages.

I wish I had time to quote some I have seen. Said a doctor who believed in a miscegenation of Latin and English, "I think it is too much of an affectation of learning to write in Latin." To which I could only retort, "An affectation of a little learning is no *worse* than a delight in ignorance." Students should also be taught how to conceal the taste of unpleasant remedies; how to avoid mixing incompatibles and thus blowing up apothecaries, as has happened; how to treat cases of poisoning with antidotes; and how to apply the stomach-pump.

In this department and others there should be at least three quizzes a week.

I must pass over the subsequent departments and say a few words about attending lectures. When should the first course be attended? A recent writer in a medical journal says, "Not before the second year." Some say, at the very first. I do not think either extreme correct. An A. B. may begin at once with lectures; but a non-graduate should study a little while first, that he may become a little more familiar with scientific terms. Any student who begins with lectures should attempt no more than anatomy and chemistry at first. He can read up diligently on these, and keep a little in advance of the lecturer with his reading. One says, "A young man must learn everything for himself by hard study over his books," and he sends his students to attend lectures only because he knows they must, to graduate. Another says, "One can learn more from lectures than from books." These two extremes are also seen in the universities of Europe and America. In the former, the students hear lectures; in the latter, they hear very few indeed, but depend mainly on text-books for their information. The true method is between these extremes; but allowance must be made for a difference in minds and early training, since some learn more easily in one way than the other. *Hard study* is *indispensable;* but lec-

tures are a *very great assistance.* The very tones of the lecturer's voice convey ideas that one would not get from reading the same sentences by himself. Then, too, he has plates and models and preparations and experiments to illustrate what he says; and, besides all this, he is more learned in his department, and can teach it better than you or I can teach *all* departments. One course should be attended every year, and thus the two methods of learning will be happily combined.

Now, shall a student attend a country or a city school? I answer, *both* if possible; the country school first, and the city school last. I think it is a positive disadvantage to a young man to visit hospitals and attend clinics during the first year and a half of his course. His attention is distracted, he gets erroneous ideas, he wastes valuable time, and he is in the way of some advanced student who could otherwise get a little nearer the bedside. He can learn anatomy and physiology and chemistry better in a country, than in a city, school; firstly, because there is less to divert his attention; and, secondly, because the classes are smaller, and he can get a nearer view of the dissections, plates, &c., and can see the chemical experiments very much better,—a matter of great importance. What chance does the three-hundredth man in a city school have to see anything? Our country schools should make these preliminary studies their great *forte.* But every student should attend at least one course in the city, and devote much of his time during the last year to visiting hospitals, dispensaries, clinics, and eye and ear infirmaries, and he should see every autopsy he can.

I have thus given, as fully as the limits of an oration will permit, an imperfect sketch of what a medical education ought to be, and how it may be obtained. But the education of a physician ends only with his life. Some one (I think it is Chambers) says, "A physician should review the

first principles of his profession every three years." In this way only can anatomy and physiology especially, and chemistry, be kept fresh in the mind. And, besides this, one must labor diligently, to keep pace with the onward march of the great leaders in our profession. When we lay aside our books, we ought to lay aside our medicine-cases. We are dealing with *life; ignorance is a crime!*

I have felt it my duty, in the course of my remarks, to criticise and censure, but I know there is ample room as well for praise; and I cannot close without congratulating you on the wonderful advances that have been made in our profession within even a very few years,—advances in the mode of teaching, improvements in the science and art. It is a just cause for pride that, in all ages, *our* science has advanced *pari passu* with others. No sooner is a discovery made in chemistry, or any of the arts or sciences, than hundreds of eager minds are ready to turn it to account for curing or alleviating pain and prolonging life.

It is a great reason for congratulation too, that, although we find many who are ungrateful and many who abuse us, the wise and good in all ages have spoken of the medical profession in the highest terms of praise. Homer says: —

> "A wise physician, skilled our wounds to heal,
> Is more than armies to the public weal."

Plato esteemed "a good physician only second to God himself"; and in a similar strain Cicero writes, "Nothing brings men nearer the gods than giving health to their fellow-creatures." Samuel Johnson says, "I believe every man has found in physicians great liberality and dignity of sentiment, very prompt effusion of beneficence, and willingness to exert a lucrative art when there is no hope of lucre." Dryden, in the postscript to his translation of Virgil, pays a high compliment to his own medical friends, and to the

profession generally. Pope, in a letter to his physician, addresses him thus:—

> "Friend to my life, which did not you prolong,
> The world had wanted many an idle song."

And again, writing of the medical faculty, he says, "They are the most amiable companions and the *best friends*, as well as the most learned men, I know." Judge Blackstone, in the introduction to his Commentaries, says, "The medical profession, beyond all others, has remarkably deserved the character of general and extensive knowledge." One of the greatest of living novelists has put into the mouth of the doctor's wife this beautiful tribute:—

"We are not rich in the bank, but we have always prospered, and we have quite enough. I never walk out with my husband but I hear the people bless him. I never go into a house of any degree but I hear his praises, or see them in grateful eyes. I never lie down at night but I know that in the course of that day he has alleviated pain, and soothed some fellow-creature in the time of need. I know that, from the beds of those who were past recovery, thanks have often, often gone up in the last hour for his patient ministration."

These tributes of praise and gratitude from the wise and good are a great reward, but a greater is the satisfaction of doing some good in the world. We do not live for ourselves,—at least, we ought not to. We should all contribute our full share toward the public good. And who has more glorious opportunities for doing good than the physician? What mission can be nobler than his? In one of the lecture-rooms of the College of Physicians and Surgeons, in New York, is a marble tablet on which are inscribed the names of several young physicians who fell victims to typhus fever in Bellevue Hospital during a severe epidemic. They stood at their posts day and night, expect-

ing no reward other than the consciousness of having faithfully performed their duty, and were stricken down one after another by the relentless shafts of the destroying angel.

Such men are, after all, the *real heroes*. The soldier is often inspirited to brave deeds by the excitement of the battle, and the hope of promotion and of glory. But physicians have no such incitements. By the bedside of the sick and dying, in chambers impregnated with the exhalations of malignant disease, they calmly sit, knowing full well the danger; their turn may come next; life is as precious to them as to any; they are not kindred to the sick. Yet there they sit, watching and waiting, watching the slowly moving chest, — watching

> "The breathing through the night,
> The breathing soft and low,
> As in the breast the wave of life
> Keeps heaving to and fro."

Trying in vain to count the thready pulse, moistening the parched lips, waiting calmly, yet impatiently, for the remedies administered to take effect, and with the heavy weight of a fearful responsibility resting on them, breathing a prayer for divine guidance, they watch and wait

> "With hearts affected, but with looks serene,
> Intent they wait through all the solemn scene,
> Glad if a hope should rise from nature's strife
> To aid their skill and save the lingering life.
> Lo this must virtue's generous effort be
> And spring from nobler motives than a fee!"

Are not these men, almost unhonored and unsung, real "heroes in the strife" as much as those whose business is to destroy?

Gentlemen, you must not expect wealth or popular applause as a reward for your labors; but, if you are true to yourselves and your profession, you will inscribe your mem-

ories in the hearts of your grateful patients: and at last you will have the satisfaction, worth more than untold wealth, of having filled up your lives with deeds of usefulness, — of having tried to enroll your names, with that of Abou Ben Adhem, "among those who love their fellow-men;" and the recording angels will inscribe on their tablets, in letters of living light, your deeds of self-sacrifice and charity, unto the coming of The Great Physician.

REPORTS OF DELEGATES.

REPORT OF DRS. PEABODY AND CONN.

Mr. President and Gentlemen,—

Your delegates appointed to attend the annual meeting of the Vermont State Medical Society were duly notified of the time and place of the meeting, received much courtesy and attention from the officers and members of the Association, and were invited, with the delegates from other States, to take a part in the proceedings.

The attendance of members was quite large, and the State Medical Associations of all the other New England States and New York were represented by one or more delegates from each society.

The business transacted consisted of an Address by the President, (Dr. Warner, of New Haven, Vt.), reports from committees from each county of the State, appointed at the semi-annual meeting of the Society to prepare papers on epidemics which may have prevailed in their section, or other subjects connected with medicine, surgery, or obstetrics.

A paper prepared and read by Dr. Frost of Brattleboro, reporting several cases of puerperal convulsions, was listened to with attention, and showed that the author had given much thought to cases of that truly frightful disease, watching closely, and with great care, those patients who had come under his observation. And his conclusions in

regard to the pathology and treatment, though somewhat conflicting with some of our authorities upon that disease, were yet entitled to much consideration from the logical manner in which he drew his deductions.

An elaborate paper on the military surgery of the late war, by Dr. Jones of Waterbury, late surgeon United States Army, was replete with statistical and practical information, and sufficient to convince all who had the pleasure of hearing it read, that the doctor was never without his note-book, though serving his country in camp and on battle-field, with untiring zeal and devotion in the behalf of her brave defenders. The Vermont Association has two sessions each year; the annual always at Montpelier in October, and the semi-annual in June, (being migratory in its character), in some of the large towns of the State. The semi-annual meeting for this year is at Windsor, the 9th and 10th of the present month. Each of these sessions continues for two days, and we feel assured that Vermont is not behind her sister States in the great labor for the advancement of the science of medicine.

The members present were largely composed of young, energetic and enthusiastic working brothers in the profession; and with such men we may but reasonably expect that Progress will be the watchword, and that the sturdy descendants of Ethan Allen and Seth Warner will vie with other States to write the names of her physicians among the first of those who labor year after year to perfect a science to enable themselves and others to assist nature in throwing off disease.

L. W. PEABODY.
G. P. CONN.

REPORT OF LEVI G. HILL.

Mr. President and Gentlemen,—

I had the honor, pleasure and profit of attending, as a delegate from this body, the meetings of the Maine State Medical Association for the years 1866 and 1867. That association was organized in 1852, and now numbers about two hundred and fifty members. The initiation fee and annual tax had been one dollar each until 1867, when it was increased to two dollars, with a fee of three dollars for a diploma of very respectable appearance.

The society does not furnish a dinner as we do, but publishes a very creditable volume of Transactions.

The meeting of June, 1866, was holden in the spacious and elegant City Building of the city of Portland, (soon after nearly destroyed by fire, but since rebuilt and made more magnificent than before), and presided over by the venerable Dr. Amos Nourse, of the city of Bath, whose hairs are whitened by many years, but whose mind is active and alive, especially to everything that pertains to medicine and the prosperity of their society and the welfare of the medical profession.

The meeting of 1867 was held in the Library Room of Mechanics Hall in Portland, and presided over by Dr. S. H. Tewksbury, a distinguished surgeon of that city, who received the members at his residence on the evening of the second day, where they passed the time very pleasantly. The annual sessions last three days: the attendance was large, and but slightly diminished on the third day. The members seemed devoted to, and highly interested in, the matters before them, and here I may mention a gratifying feature: — the physicians of Portland, where the meetings were held, were prompt and constant in their attendance,

and this was especially noticeable of those who are known to be doing a large business. They either worked early and late, or made some sacrifices to attend the sessions, and probably both.

The various committees were ready and prompt with their reports, the subjects reported upon being more numerous than in our society; and these reports, usually not very lengthy, showed interest in the subjects as well as much thought and study. The papers were generally read by the chairman or writers of them, except in a few instances when the latter were unavoidably absent, detained by sickness or otherwise, the papers were forwarded and read by the Secretary, and often followed by pertinent discussion, then referred to the Committee on Publication. Several voluntary papers were presented. Pathological specimens were exhibited, interesting cases related, which brought out others, and elicited much interesting and practically useful discussion.

It is customary in that association to have an annual address by some member appointed for that purpose, as well as the President's address. The President's paper may be read at noon of the first day, and the other annual at one of the evening sessions, when the public may be invited. I was not in season, I am sorry to say, to hear the whole of President Tewksbury's address, but judge it to be a very valuable and interesting production. He advised efforts to establish a State Hospital, a Pathological Museum, also application to the Legislature to publish their Transactions; and the society, acting upon his suggestions, appointed the necessary committees to carry them into effectual operation. It was agreed and settled that the museum should be located in Portland, and it was presumed the proposed hospital would also be established there.

Committees were appointed as follows: —

On Practice of Medicine, on Surgery, on Prevailing Ep-

idemics of the Season, on Excisions and Conservative Surgery, on Fractures, on Obstetrics, on Medical Education, on Medical Ethics, on Materia Medica and Pharmacy, on Diseases of Women, on Ventilation, on Toxicology, on Necrology, on Cholera, on Induction of Premature Labor and the Circumstances which Justify it, on Sanitary Condition of Almshouses in the large cities, &c. The reports upon the last named subject would, or did, include something of the topography, history, and general sanitary condition of the cities, as well as of the almshouse establishments of those cities. I do not understand or presume it would be deemed necessary to have reports upon all these subjects each year. Some of these would be left out and others introduced; for the Maine Medical Association is emphatically a working body, the members seeming desirous of making the most of their time and opportunities in imparting and receiving, from and into their stores of medical attainments, the most and best the occasion permits.

I said, in the beginning of this paper, I had the "honor, pleasure and profit." I consider it to be a high *honor* to be a representative of this society to a like body of respectable, educated, literary, scientific and worthy gentlemen of a sister State, there to be introduced and invited to participate in their deliberations.

A *pleasure* to see, hear, and become somewhat acquainted with distinguished physicians whose names are familiar to us, but whose face, figure, or voice is not so familiar; and also to make the acquaintance of others, who, though not yet so prominently before the medical world, are excellent men and growing physicians.

Profit, for I am sure no physician who is interested in medicine or surgery could spend the time of that session in listening to the reports and discussions of that association without profit to himself, and, I presume, to his patients. Many new ideas or facts are presented or brought

out, old ones scoured up or brought forth anew, and men made to think and reason more fully and profoundly.

Suffice it to say, gentlemen, I was highly gratified with my visit to the Maine Medical Association, and with all its proceedings; and if I were to ask for any office, a thing I never do and almost hate, I would ask to be elected a delegate to the above named association.

LEVI G. HILL.

REPORT UPON PRACTICAL MEDICINE.

BY L. W. PEABODY, M.D., OF EPSOM.

Mr. President and Gentlemen,—

I feel very much embarrassed in coming before you with a report upon Practical Medicine, inasmuch as I am a man of great modesty, and cannot bring to my aid extensive experience in a large field of practice. For my lot has been cast in a limited field, though I have been able to observe a great variety of disease, scattered over twenty-four years of my life, while engaged in the practice of my profession.

And now, and here, let me call the attention of the younger portion of the Fellows of this Society to the importance of keeping full notes of the *symptoms*, diagnosis and treatment of your cases.

Many times in my life have I seen the vast importance of keeping full and copious notes, and especially so since I have been collecting material for this report. In looking over some of the able reports as they have been published in our Transactions, I have found that it is the universal complaint, that it is almost impossible to get any aid from our brethren in making up a report, and therefore it becomes absolutely necessary to find our material in our own experience and observation. And if we had that experience written out before us, what a wealth of material we should have from which to draw!

In taking a retrospective view of the past year, I find a barren field from which to make a report; for, as far as my experience goes, there has been less sickness than in any year for a long time. And, on inquiry, I find it is almost the universal expression among medical men, that there has been an unusually small amount of sickness. And though that may be favorable to our patrons and friends, it gives us less material from which to make our reports, and that is not the greatest or most important lack in the life of a physician.

I was very much interested in a little discussion, at our last annual meeting, brought out by reason of some remarks made by one of our foreign delegates, in regard to the changes that are continually going on in the nature and character of the diseases which we have to treat, and the corresponding change we are obliged to adopt in our mode of treatment. It brought out the fact, as you may remember, that the habit we have almost universally fallen into, of giving less medicine and bleeding less, was owing more to the change in the nature of disease than to any influence the homœopathic gentry have had upon the profession.

Almost all our diseases have become asthenic in their character, demanding tonics and a supporting treatment, rather than depletion; and therefore we are instinctively led to adopt the former course of treatment.

I remember, a few years since, a medical friend remarked to me that, "when he used to visit me, and find me giving quinine and Dover's powder on all occasions, he would go away and laugh over it; but before he was aware of it he would find himself doing the same thing." Thus it is, we are led by intuitiveness, or some other power, to adapt our treatment to the changes in the character of diseases, which are continually going on. And there are not only changes in the character of our diseases, but we have also new forms of disease; or rather, diseases which have not

been observed for many years will again return, as diphtheria, cerebro-spinal meningitis, &c.

I well remember the first case of pneumonia I was called to treat. I had my head full of McIntosh, Armstrong, and Marshall Hall, and supposed I should do but half my duty, if I did not tie up my patient's arm, and place him in an erect position, and bleed him from a large orifice; which I did; but, to my dismay, the moment the blood began to flow my patient tumbled over in a fainting fit! I soon learned that ordinary cases of pneumonia did not need or bear depletion, but rather stimulants. There have been changes also in typhoid fever. I have noticed that cases of hemorrhage from the bowels have been more frequent within a few years than formerly. Perhaps it may not be so with others, but I have learned to dread that one symptom more than any other; and my ordinary treatment of late has been to keep in view that result and guard against it. In ordinary cases we can control it with opium and acetate of lead. I have used the persulphate of iron in a few cases, but I have more confidence in the opium and lead; though perhaps the iron is equally as good, and more safe; but I have seen no ill effects from a free and continued use of the acetate of lead in such cases. I once had a case of hemorrhage in typhoid which I will mention, not doubting some of you may have had a similar experience. A young lady had passed through a rather severe form of fever to the third week, when one morning, in making my usual visit, I learned that the patient had had, during the night, a number of quite copious discharges from the bowels, and the nurse had emptied the vessel a number of times, not knowing it was blood! I immediately put her upon opii and acetate lead, and she did not have another movement of the bowels of any kind for more than ten days. An old lady came in after two or three days, and declared that she knew "she would mortify if she did not

have something pass through her, and if she was her child she should give her some *ile*, she knew." I told the mother if she gave oil, she did it at her own risk, and to the peril of the life of her daughter. The patient recovered.

Diphtheria, that dread epidemic, which stalked through our State a few years ago, has nearly disappeared. I do not know as it has been epidemic anywhere in this region for the last year.

Within the last few years a few cases of cerebro-spinal meningitis have come under my notice, though it has not appeared in an epidemic form. The cases which I have seen have not been ushered in by those severe and urgent symptoms of which writers on the subject speak. Indeed, there is quite a variety of modes by which it makes its attack. Usually, in the cases I have seen, there have been symptoms of biliary derangement, with slight fever. One not used to the disease might be led to suppose he had a case of bilious fever. But, in the course of a few days, there will be manifestations of cerebral or spinal trouble, such as dilatation of the pupils, or some paralysis of one or both sides, intolerance of light, and sometimes complete loss of voice, or inability to articulate, and sometimes spasms.

A. D., female child about nine years old, was taken in June, 1866. She had been complaining of some indisposition for some weeks. Being absent at the time, my friend Dr. Philips took charge of the case for a week or two. He considered it a mild form of fever until some of those symptoms above mentioned showed themselves. On my return, July 12, the case fell into my hands, and I found that a complete paralysis had occurred upon one side, about that time, and a total inability to articulate, though the mental faculties seemed to be unimpaired, as

she would make known her wants by signs. There was subsequently retention of urine, and I was obliged to use the catheter every day. She became very much emaciated, and was convulsed somewhat before her death, which occurred Aug. 10. The treatment consisted of laxatives, counter-irritants to the spine, and a general tonic course.

But the case of all others which has interested me most occurred in my own family. My youngest daughter, aged ten years, was taken sick in Feb., 1862. At first I supposed she had a mild form of bilious fever: there was nausea, vomiting, pain in the back, costiveness, and subsequently deep yellowness of the skin and conjunctiva. As another daughter had had the same symptoms and had become convalescent, I supposed this case would do the same; but instead of getting better I found, at about the end of ten days, cerebro-spinal symptoms began to show themselves; and first there was retention of urine, which I relieved with the catheter, and then there was intolerance of light. She could not bear the smallest ray of solar or artificial light, and we had to keep a black bandage over the eyes, even in a dark room. Loss of voice was an early symptom; there was a complete inability to articulate even in a whisper. Partial convulsions next occurred, confined mostly to the right side; she would lie for hours with her eyes rolled up, with spasmodic motions of the right hand and right foot, pupils dilated. In the interim of the convulsions, there would be most excruciating pain in the back, right side, and down the right leg; indeed the pain became so intolerable that it was with pleasure we would see her go into the convulsions, and become, for the time being, insensible to pain. I learned that the application of a dry cup to the back or side, or a pledget wet with chloroform, would bring almost instant relief from the pain. The back was most intensely sensitive to the touch, and continued so for three

or four years. After some weeks the flexor muscles of the thighs became contracted, and continued so during her waking hours, but, to my surprise, I found that when she was in a deep sleep the contraction would give way, and she would extend the limbs as well as ever; but the moment she was awake they would be flexed completely upon the thigh, and I could not possibly extend the legs more than at right angles without producing the most excruciating pain. She was very much emaciated. For some time I considered it a hopeless case, and several of my medical friends, who kindly visited her at different periods of her sickness, could give me no encouragement that she would get well. The loss of voice continued for several months, and, when it began to return, there were certain sounds she could not make, especially the labial sounds as p, m, f, &c.; and when she, in a measure, recovered her voice, she could not always think of the word or name she wished to use. She nearly forgot all the learning she had acquired, and had to begin anew to learn. She has now entirely recovered from any effect the disease has had upon her mind.

The treatment all through was of a tonic character, with anodynes to relieve pain, and counter-irritants to the spine. I gave quinine pretty freely from the first, and subsequently iron; and the form I thought most beneficial was the sirup of the iodide of iron. She lay in bed nearly two years. My first effort towards getting her up was to get her out of doors. At the suggestion of the late Dr. J. Mason Warren, I had a long basket made and had a bed made up in it, in which I carried her into the open air in warm, sunny days, and let her lie in the sun for hours. To extend the legs, I applied adhesive straps to the ankles, to which I attached cords, which were passed over pulleys at the foot of the bed, and continued extension made by means

of weights attached. By that means I was able to get the limbs so near a straight line as to get her upon her feet, and by supporting her body have her bear what weight she could; thus, in a short time, I got her so as to bear her weight by taking hold of chairs, &c. To obviate any tendency to curvature of the spine, I ordered a spinal supporter from the late Dr. Phelps, of Boston, to whose kindness and ingenuity I am under great obligation. It consisted of steel springs, nicely fitted to the back, covered with net-work and padded; the lower part was buckled close around the pelvis, and there were rests which extended from the upper part, under each axilla, to keep the body erect and take off the weight of the body from the spinal column. With this supporter applied, she could sit for hours with greater ease and comfort than she could as many minutes without it. Under this course of treatment she gradually grew better, and now I consider her in perfect health, without the slightest curvature of the spine.

There is one other disease of which I will say a few words, for the reason that a casual observer is liable to be led into error. I allude to that condition of the bladder with which we sometimes meet in old people,—a loss of tone or paralysis of the bladder. It is sometimes mistaken for inflammation or irritation of that organ; the patient will be unable to hold the water but a few minutes, and will be obliged to evacuate every half hour, or there will be an involuntary dribbling of urine. The patient will suppose he completely empties his bladder, and will be incredulous if you tell him he has a large accumulation of retained urine, and will be astonished beyond measure when you demonstrate to him by means of the catheter the truth of your assertion. It is a disease peculiar to aged persons, and but little hope can be entertained of a permanent cure. It should be treated by occasionally using the catheter to take off the distention, and thus give the muscular coat of

the bladder opportunity to recover tone, and at the same time give such medicines as will have a stimulating effect upon the bladder and the muscular system. Nux vomica, combined with some anodyne and laxative, does well in some cases.

All of which is respectfully submitted.

L. W. PEABODY.

THERMOMETRY OF DISEASE.

BY DR. T. J. W. PRAY, OF DOVER.

It is not till within a few years that the thermometer has been used for indicating the history of diseased action. Very little is known in this country, and indeed the same may be said of Europe, outside of the General Hospital, what an adjuvant in the sick-room this delicate instrument may serve to the physician. Not that there is an ignorance on the part of our profession that the temperature of the system forms a dominant symptom of disease, or that preternatural heat unmistakably shows its severity. As long ago as the days of Galen, one of the distinguishing characteristics by which he described fever was heat; and since his time no physician has found fault with his definition. As this is, then, a prominent symptom of fever, a consideration of how this may be measured and made the index of the mildness as well as the severity of the ailments of the body, may not be inappropriate. Our endeavor will be to point out imperfectly how this pathognomonic symptom may be the vehicle of surer diagnosis, and a safer prognosis of abnormal action. We maintain that by the means of a thermometer one can predict with certainty the results of disease, and be able to foretell oftentimes, with precision, any new undeveloped state of the system. Certainly then, if this can be done, the physician acquainted with the laws of disease, as indicated by this one symptom,

is a safer counselor and better pilot to conduct his patients through the various phases of unhealthy action of the body. The thermometer in his hands will foretell the storm, as well as the sunshine, of disease; it will serve the same purpose as the barometer to point out a change in the atmosphere. It will lead one to reason rightly when an increased severity of disease is to occur, or when fatality will ensue, with as much certainty as the use of the barometer does the coming storm. Not only so: it speaks of a return to normal action with as much faithfulness, so as to enable the medical man to throw off anxiety, and to act more understandingly with reference to the proper treatment of his patients.

But to all this it may be said, there is no need of this instrument, as an increase of the temperature of the body may be judged by the touch of the physician. The hand is often an incorrect means of ascertaining, not only the intensity but prevalence of this symptom. The thermometer discloses exactly and correctly the sensation as conveyed by the sense of touch. It points to results, which the hand never can do. Take, for instance, many diseases of children; a knowledge of the temperature is of the utmost consequence in enabling the physician to arrive at a correct diagnosis. All know that it is often puzzling, in the first stages of febrile action in a child, to make out with certainty the real nature of the disease. How are we to learn with exactness how the disease will terminate, when an illness is ushered in by nearly all the symptoms of fever, a quick pulse, headache, thirst, coated tongue, &c.? In very many cases, these symptoms pass away more rapidly than they came; a physician and parent are both deceived. The thermometer alone will come in here, and unravel this state of things.

But the hand is not a sure indicator of heat. Its judgments are often incorrect and deceptive. Indeed it often

speaks of cold when the intensest heat prevails. This is observable not only in children but in adults. Recently I was called to a little child of some two years old, when the sensation of the whole surface of the body was cold. In the hollow of the hands, and in the axilla, there were marks of the severity of the disease. When Dr. Davy, of England, was investigating the normal temperature of the body, and collecting facts therefrom, he was perplexed to find that one person exhibited a temperature of a hundred and four degrees Farenheit for many weeks. This person was a lunatic soldier. It occurred to the mind of this physician that the insane do not seem to suffer like ordinary persons from cold, and he diverted his attention to the cause of this untoward symptom. There was no cough nor difficulty of breathing, and the man made no complaint of internal troubles, had a good appetite, with his digestive organs, so far as known, acting well. This man died in about one month of acute tuberculosis, not otherwise expressed by the symptoms, beyond the great, persistent, and cutaneous elevation of the temperature accidentally noticed. He who would depend upon the touch alone, in learning the *status* of the heat, must remember that heat is never absent in fever. Rigor, which is sometimes present, is a mere peripheric phenomenon, and the coldness of the skin is a subjective sensation produced by the state of the peripheral nerves, and often is not due to any decline of the temperature. While the outer parts feel cold to the bystander, the internal parts are abnormally warm. "While the outer parts freeze, the inner parts burn." For instance, in ague, several hours before the paroxysm the temperature of the trunk of the patient's body begins to rise, and when the disease seems to have disappeared an increase of temperature is detected, showing that the patient is only apparently, but not really, cured. Dr. Haen, of Vienna, nearly a century ago, was wont to demonstrate to his pupils that the only safe way

to a correct knowledge of the state of heat was by the thermometer. Even in the cold stages of ague, with the teeth chattering and the body shivering, the temperature rapidly rises, although the external surface of the body is colder than usual. The thermometer will facilitate the recognition and character of diseases we are called to treat. It aids the busy practitioner to certain and safe conclusions and relieves him much of the anxiety of mind in cases of doubtful tendency. Not only so, it will tend to elucidate the natural history of febrile affections.

Such being the case, the inquiry comes, How can animal heat be best determined? There are two ways; viz., by the thermometer and the thermo-electric apparatus. The latter method is doubtless the most precise, and perhaps the most accurate, and yet a sensitive mercurial thermometer is the only instrument of practical value. The instruments now in use to indicate animal heat are two: the straight and curved thermometers. The latter is far the best for daily use, as it can be easily placed in the axilla. These thermometers measure about a hundred and twelve degrees Fahrenheit, and each degree is subdivided into fifths.

To use these thermometers to discover the heat of the body several ways have been recommended. It has been urged by some to place the instrument under the tongue; but to this there is a serious objection, as the temperature of the mouth is continually changing, depending upon the temperature and quantity of the air breathed or used in respiration. Other parts of the body, as the hollow of the hand, groin, are used, but no part of the human body can be relied upon with more certainty than the axilla. When the thermometer is used, the bulb must be placed in the arm-pit, and kept *in situ* at least five minutes; before doing this, the best way is to warm the instrument, and after adjusting it the rapidity with which it rises depends upon the degree of temperature present. If there is a persistent rise

above 98.5 degs., the normal condition of the body, or depression below 98.5 degs., it is a sure sign of disease. The mere rise of the heat is not a mark of disease, as, for instance, it is well known the temperature is lowered and increased by certain healthy states of the system. The temperature is lower after a full meal and the use of alcohol; it rises as digestion advances. Ingestion of improper articles of diet, in fevers, causes often remarkable elevations of temperature. Sudden shocks to the system, sleep, exposure of the body to the air in certain states of the atmosphere, produce a reduction of the heat of the body.

A question of interest — How do the heat and pulse correspond? Is there any correlation of the pulse and temperature? Aitkin lays down the rule as follows, namely: "An increase of temperature of one degree above 98 degs. Fahr. corresponds with an increase of ten beats of the pulse per minute." This is true in the main, but is subject to many exceptions. Dr. Gibron observes that "In typhoid fever I have known a pulse of 100 to exist with a temperature of 105.6 degs.; in jaundice, a pulse of 58 with a temperature of 103 degs.; in peritonitis, a pulse of 80 with a temperature of 102 degs.; in tetanus, a pulse of 72 with a temperature of 104 degs.; in a shock following severe injury, a pulse of 120 with a temperature of 98.5 degs.; in typhoid fever, a pulse of 120 with a temperature of 100.4 degs. Fahr."

So then the rule by Aitkin is not a sure guide. The temperature is a much more certain guide than the pulse, since it is not liable to be affected by nervous debility or excitement.

Rise of the thermometer from 4, 6, and even 8 degs. Fahr., over the natural limits of health, serves as a means of prognosis and diagnosis of the limit, severity and extent of diseased action. The height of the temperature is usually a sure indication of the severity of the fever; for instance,

a temperature of 105 degs. and upwards forebodes danger, and when it reaches 110 degs. Fahr., a fatal issue is almost certain; and, what is remarkable, the temperature continues to rise after the apparent occurrence of death. Wandulich speaks of a case of spontaneous or rheumatic tetanus in which the heat exceeded the maximum of any ever reached. The temperature in this instance only began to increase during the last twenty-four hours before dissolution, although the other symptoms had been very violent, the pulse being 102. During the night previous the temperature suddenly fell 3.3 degs. Fahr., while the velocity of the pulse and the frequency of respirations diminished. The other symptoms remained nearly the same. Shortly before death the thermometer indicated a heat of 100.75 degs., and a pulse of 180. At the moment of death, the thermometer was 112.5 degs. Fahr. After the decease of the patient the temperature still rose, and it attained the height of 113.8 and then began to gradually subside; and thirteen and one half hours after the breath had left the body, the thermometer had not fallen to the normal average of health.*

Certain febrile affections, such as typhus, typhoid fever, small-pox, scarlatina, measles, rheumatism, pyæmia, pneumonia, acute tuberculosis, &c., have daily fluctuations of temperature throughout their course. To such accuracy have observations been carried, that a different diagnosis may be established from day to day from a careful observation of the temperature alone. The thermometer, properly used, is one of the most certain, though not the only, means for determining the real state of the patient in these several diseases, as regards morbid disturbances which are to occur, or whether a favorable prognosis will ensue. Indeed it frequently affords the best means in deciding doubtful cases, and is often a corrective of hasty investigations. It is well known that intestinal catarrh, some forms of pneumonia,

* See Aitkin.

malarious fever, acute tuberculosis, meningitis, may each simulate typhoid fever; the thermometer will solve this state of things, and bring a true solution to our doubts.

We need not add that a fall of temperature generally indicates a return to health. In pneumonia, when a marked fall of the thermometer is noticed in the evening, the period of crisis has arrived. In convalescence, the recurrence of a high temperature is generally the first sign of approaching collapse, or the outset of some new disease. As long as the temperature remains normal, or near the health standard, nothing need be feared.

The thermometer is often the means of a safe and definite diagnosis. A single observation will reveal the future character of the disease. A person, yesterday in health, and who exhibits to-day a temperature of 104 degs., is almost certainly going to be attacked with fever or ague. During the exacerbations of typhoid fever an abnormal fall of the thermometer three or four days before any change in the arterial circulation, or other sign of mischief, has been observed, will indicate some marked phase of the disease, such as hemorrhage from Peyer's glands, &c. A case of this kind is related by Dr. Parker, of England. Again, if a person under eighteen years, exhibiting symptoms which generally resemble typhoid fever, should have the temperature sink below 103 degs. during the first week, or the first half of the second week, it is a sure sign that his trouble is not of a typhoid character. A sudden rise of the thermometer during the first day, say to 106 degs. Fahr., in any ailment, is a certain sign that the person does not suffer from typhoid or typhus fever. During all acute forms of disease the temperature is abnormally elevated, and the severity and duration of fever are exactly measured by the degree and duration of the elevation of the heat. We can always predict, in typhoid fever, whether we are to have a mild or severe case to treat. For instance, a temperature

of 103 degs. shows the disease will be mild; and, on the other hand, a temperature of 105 degs. Fahr. forebodes danger, especially during the third week; 101 degs. indicates a very mild attack or the commencement of convalescence. In pneumonia, 104 degs. Fahr. denotes a severe and dangerous attack; and a like state of the thermometer in acute rheumatism is always an alarming symptom, speaking with emphasis that danger is ahead, or some complications may start up, hard to grapple with. In short, a fever temperature of 104 to 105 degs. in any disease shows that the disease is not checked, and new phases may at once spring up, dangerous to life. Indeed, a knowledge of the range of temperature peculiar to disease enables the medical man, when he perceives any marked departure from its usual progress, to pronounce that either his diagnosis has been wrong, or that some other lesion has supervened.

Much more might be written in praise of the thermometer, and it would not be uninteresting to detail individual cases, showing the range of temperature, its variations throughout the course of familiar diseases; but this would swell this beyond its contemplated limits, and perhaps would add no interest to the subject. Already modern works on Theory and Practice have begun to direct the general reader to the subject of heat as a mark of the intensity and duration of disease; and it will not be long before the whole subject will receive a proper attention from our profession. Our medical schools to-day are adopting this improvement of the hour, and the older members of the profession cannot lag behind without duly considering how much the measure of heat may do to forward their researches into the intricacies of disease.

PROSECUTION OF MEDICAL MEN.

BY S. M. WHIPPLE, M.D.

FELLOWS, —

Like the many prosecutions against towns in this State, for road damages, is the present mania for prosecutions against surgeons for alleged mal-practice. Within the past few years, several suits have been commenced and carried through against this class of men. Among those in this vicinity, we may mention the trials of Dr. Swett of Newport and Dr. Haynes of Concord, in this State, and, quite recently, that of the celebrated Dr. Kittredge of Andover, Massachusetts.

In the first case Dr. Swett was acquitted, not more in consequence of the ability of his counsel than the honesty and independence of the surgeons called to testify for the plaintiff. In the Haynes case we understand that the verdict was given for the plaintiff, in the face of the most explicit testimony from medical men. The same was true of Dr. Kittredge, in which, as we understand it, after an injury to the arm, in which there was rupture of the brachial artery, the attending surgeon was brought in guilty for causing the arm to slough off by tight bandaging.

The community do not seem to understand that by encouraging such prosecutions they are endangering their own safety. Such prosecutions can have only one tendency, and that is to demoralize and to break down the medical profession, the only and last resort we all have in sickness,

in accident, and to mitigate suffering, and to soothe the pangs of death. Are the community prepared to dispense with their aid at these trying scenes, or even to do that which would make their services less efficient? Just so long as there are cases of fracture, just so long will there be cases for prosecution. As all injuries cannot be made perfect, surgeons will have an exorbitant fee for such risks, or decline the responsibility.

But lawyers and disaffected patients, learning it to be an easy matter to plunder the medical profession by means of suits of this character, and that many of its own members can be made their willing allies, will not be disposed to forego its free application wherever and whenever a favorable opportunity presents, notwithstanding the damaging effect such prosecutions may have on the community at large. If surgery was a demonstrable science, and a fair amount of skill and application could reduce it to a certainty, then any deviation in its application to fracture from a perfect cure would show incompetency in the surgeon, and that he was not master of the science. But surgery has not yet attained that position among the sciences which will command anything like certainty; and statistics from the practice of the most skillful surgeons abundantly show this fact. Then why will physicians guarantee, and the community expect and require prosecution from an imperfect science? Simply because they do not understand it, and will not awake to see their impending danger. We believe with the New York Medical Gazette, "that these prosecutions are frequently malicious prosecutions, and successful only through ignorance in the bench, bar, and jury-box."

Be this as it may, it seems to me that a great reform must be made in surgeons themselves. They must stop making unfriendly criticisms upon the practice of others, and cease encouraging and testifying that in a great major-

ity of cases broken limbs may be made perfect, while the fact is not so.

Criticisms and fault-findings and scandal among physicians, with regard to each other's practice, have become proverbial; and it cannot be expected that we can be respected by community until we learn to respect each other and the principles of our own profession. We all soon will learn that "place and power" will become important to protect any one in the profession from being swallowed up by the unpalatable dose which has been so freely prescribed to our less favored brethren. Nor can we say that justice is wholly blind in this matter; for, while some have been taught their own weakness and mutual dependence, the whole profession has been roused to a sense of its own danger, — urged by dire necessity to seek ways and means to allay the storm which threatens not only the personal prosperity of surgeons, but the welfare of the whole suffering community.

A citizen cannot perform the duties of citizenship under duress; neither can a surgeon perform the various operations of surgery, continually subject to menaces and threats of prosecution for alleged mal-practice. For the small fee awarded for such services we cannot be expected to encounter such heavy risks. As all are more or less concerned in this matter, let us awake to a true sense of this growing evil, and speedily apply the remedy. With Horace, we say, *Interdum vulgus rectum vidit.*

As a supplement to the preceding statements, I submit the following summary of cases, mainly from statistics from the practice of Professor Frank H. Hamilton of Buffalo, New York. It is well understood that within the past few years the attention of the profession generally, and of some of its members in particular, has been called to the subject of suits and damages for alleged mal-practice.

Some time ago Dr. Frank H. Hamilton published tables

containing an analysis of one hundred and thirty-six cases of fracture of various forms, together with the treatment of the same. Another edition has now recently appeared, containing in addition to the old tables a supplement of three hundred and twenty-five other cases, taken by Dr. Boardman from Dr. Hamilton's note-book. The whole makes an analysis of four hundred and sixty-one cases of various fractures with their results, not only as to life or death simply, but as to deformity, or shortening, or any variance from the condition of the bone before the fracture. The results arrived at must be of interest, and though they are not in all respects comforting to the vanity of surgeons, they are what is far better, instructive.

Of this number of cases, thirty-one resulted in death soon after the accident, so that they are excluded in the general estimate. All these cases are taken from the practice of Dr. Hamilton and other well qualified surgeons, leaving out of consideration all cases treated by ignorant men and quacks; so that the result obtained must give a fair conclusion as to what may be expected in the treatment of fractures by the most skillful men.

We invite the attention of the profession to the following abstract from the summary of all the cases, as showing the proportion of perfect cures found in the patients of the most learned and eminent surgeons.

Of nine fractures of the ossa nasi, one was perfect.

Of four fractures of the septum nasi, one was perfect.

Of one fracture of superior-maxilla, one was perfect.

Of thirteen fractures of the inferior-maxilla, seven were perfect.

Of forty-one fractures of the clavicle, fifteen were perfect.

Of three fractures of the scapula, one was perfect.

Of thirty-eight fractures of the humerus, seventeen were perfect.

Of twenty-seven fractures of the radius, seventeen were perfect.

Of twenty-three fractures of the ulna, fourteen were perfect.

Of thirty-four fractures of the radius and ulna, twenty-five were perfect.

Of seventy-three fractures of the femur, fourteen were perfect.

Of seven fractures of the patella, one was perfect.

Of seventeen fractures of the tibia, fourteen were perfect.

Of sixteen fractures of the fibula, eight were perfect.

Of seventy-three fractures of the tibia and fibula, twenty-three were perfect.

One fracture of the carpal bones was imperfect.

Of three fractures of the metacarpal bones, one was perfect.

One fracture of the phalanges was imperfect.

Of four fractures of the ribs, two were perfect.

Of two fractures of the pelvis, neither was perfect.

The whole number of fractures mentioned in this summary is three hundred and ninety-two; and of them the perfect cures are only one hundred and sixty-one; not quite one-half.

Of the fractures of the clavicle, a little more than one-third were perfectly restored; of those of the humerus, a little under one-half; while of those of the femur, the perfect cures were a trifle under one-fifth part. We are free to confess that these results are entirely unexpected; for, though we did not believe that all bones were united without much displacement, we had supposed that in the most common fractures, as of the bones of the limbs, the art of surgery could accomplish more than here appears.

The only practical lessons to be drawn from these facts are, first, that, great as have been the advances in surgical knowledge, the art of surgery is still far from perfection; and, in the second place, that surgeons should be careful

not to promise too much if they would avoid the numerous prosecutions to which some of late have been subjected. Too many in the profession have been unwilling to confess the imperfections of our art, to which these tables should call the attention of all. The promise has been virtually, if not actually, that broken limbs should be restored to as perfect a condition as though they had never been fractured. That disappointment should follow the result, in a majority of cases, cannot be wondered at, with these tables before us; and it is no more a matter of surprise that those who are thus disappointed should seek a remedy in the law.

A large indebtedness is due Dr. Hamilton for thus placing before the medical profession an authentic account of so many cases of fracture, with their results; and we trust that surgeons will avail themselves of this opportunity to obtain information as to the probable result of their treatment. Particulars of each case, in concise language, are appended to the tables, which adds much to their general interest; but we have no room to do more than to allude to them here. We feel that we cannot do better than to urge upon each member of this Society to give a little more attention to this matter, and we are sure that they will learn not to be too boastful of this department of surgery, and not to blame too hastily a compeer who has sent out a patient with a slight deformity.

REPORT OF THE DELEGATES

FROM THE

NEW HAMPSHIRE MEDICAL SOCIETY.

To the Fellows of the New Hampshire Medical Society,—

In accordance with the wise usage, your delegates were present at the examination of the graduating class of the Medical School at Hanover, and desire to make the following report:

Arriving about noon, they were immediately waited upon by two of the Faculty, and soon after dinner, under their guidance, repaired to the room in the Medical building assigned for the examination.

Each student was admitted singly, examined by each Professor in turn, and then handed over to your delegates.

The style of the examination of each of the several Professors in their respective departments was of the most appropriate, thorough, systematic, and, we may even say, rigid kind. We can truly say, if this was the skeleton, the body must have been complete.

We take especial pleasure in thus being able to bear testimony to the thoroughness of the examinations, for it assured us of the fidelity of the Professors in the Lecture Room. Surely, they would not be likely to ask of the student what they had failed to teach him.

In confirmation of this, we can mention the well-doing of

the graduating class. We well remember how much we heard about the "Green Room," before graduating, and how our hearts palpitated as the hour for our examination drew near; and when we take into consideration these feelings, intensified by the presence of delegates, never for the most part seen before, we can well understand how embarrassed the students must have felt. But, notwithstanding this, they acquitted themselves well, and shew a commendable preparation for the arduous and responsible profession they had chosen, reflecting honor upon themselves and their teachers.

We found the means of instruction in the Anatomical Cabinet, Chemical Laboratory, Museum of Materia Medica, Medical Botany, Surgical Pathology, &c., such as are usually found in Medical Colleges. The collection of specimens in Medical Botany, and their arrangement, are especially valuable.

While we would not disparage others to praise our own, we can most confidently recommend the Medical School at Hanover as an excellent place to pursue the study of Medicine. Here can be laid a sure and thorough foundation; here can the first principles be fully learned. In that academic atmosphere, away from the temptations of a more populous locality, the student can pursue his studies under the guidance of ablest of instructors, to the highest advantage to himself, and for the benefit of those who may fall to his care in future years.

Before closing, we desire to acknowledge the courtesy of the Faculty, and to urge the Society to sustain this Medical School, by advising students to attend its Lectures.

CHARLES F. HILDRETH,
JAMES H. WHEELER,
Delegates.

TRANSACTIONS

OF THE

NEW HAMPSHIRE MEDICAL SOCIETY,

(SEVENTY-NINTH ANNIVERSARY,)

HELD AT

CONCORD, JUNE 15 AND 16, 1869.

MANCHESTER:
JOHN B. CLARKE, PRINTER.
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PROCEEDINGS.

TUESDAY, JUNE 15, 1869.

The Seventy-Ninth Annual Meeting of the New Hampshire Medical Society was held at Concord, on Tuesday and Wednesday, June 15 and 16, 1869.

The Society was called to order by the President, Dr. LEVI G. HILL, of Dover.

Voted, That the reading of the proceedings of the last meeting be dispensed with.

The following Committees were appointed by the Chair:

Committee to examine Credentials of Delegates from other State Medical Societies, and introduce them to the Society—Drs. G. P. Conn and S. L. F. Simpson.

Committee to examine Patients—Drs. L. B. How, T. D. Parker and R. P. J. Tenney.

Committee to audit Treasurer's Account—Drs. G. A. Crosby and J. W. Parsons.

Committee on Nominations—Drs. Smith, Eastman, Webster, Smalley and Marshall.

The Council recommended the following named gentlemen, who were thereupon elected members of the Society:

A. W. ABBOTT, M. D., Suncook.
CHAS. C. PIKE, M. D., Sutton.
CHAS. A. CARLTON, M. D., Bradford.
S. M. DINSMORE, M. D., East Washington.
GEO. C. BLAISDELL, M. D., Contoocook.

FRANK W. GRAVES, M. D., Warner.
JAMES M. RIX, M. D., Warner.
N. G. BROOKS, M. D., Acworth.
G. W. COOK, M. D., Henniker.
W. G. CARTER, M. D., Concord.
M. W. RUSSELL, M. D., Concord.
A. K. DEARBORN, M. D., East Weare.
E. EDWIN GRAVES, M. D., Boscawen.
JOHN R. HAM, M. D., Dover.
ALVAH JENKINS, M. D., Great Falls.
J. FITZPATRICK, M. D., Manchester.

The Council reported that it was inexpedient at the present time to adopt the report of the Committee on By-laws. Also, that Drs. C. F. Kingsbury and G. P. Conn were appointed Orators for the next Annual Meeting, with Drs. C. H. Boynton and J. W. Parsons, substitutes. Accepted.

At twelve o'clock, the President read the Annual Address, and, on motion of Dr. Webster,

Voted, That the thanks of the Society be presented to Dr. Hill for his able address, and that it be referred to the Committee on Publication.

An obituary notice of the death of the late Dr. N. W. OLIVER, of Portsmouth, prepared by the Committee on Necrology, Dr. PRAY, of Dover, was read by Dr. Smith, of Peterborough,—Dr. Pray being absent,—which was accepted and referred to the Committee on Publication, and the Society passed the following preamble and resolutions:

Whereas, The New Hampshire Medical Society has been bereft of one of its number since the last Annual Meeting, therefore,

Resolved, That this Society has learned with deep sorrow the decease of their Fellow, N. W. OLIVER, M. D., of Portsmouth, a useful member, a physician of excellent life and noble character, and we hereby tender to the bereaved family our hearty sympathy and consolation in their severe affliction.

Resolved, That the Secretary transmit a copy of this Preamble and Resolutions to the widow of the deceased, as a mark of respect and esteem for their companion.

Dr. HILL, delegate to the Massachusetts Medical Society, Dr. SMALLEY, delegate to the New York Medical Society, Dr. WEBSTER, delegate to Maine, and Drs. BEAN and CONN to Vermont, each made their reports, which were accepted and referred to the Committee on Publication.

Voted, To adjourn to two o'clock P. M.

AFTERNOON SESSION.

Called to order by the President, and Drs. Roberts and Mason were appointed a committee to notice the death of Dr. Alvah Moulton, late of Ossipee.

Dr. CONN, from the committee to receive delegates from other states, introduced Dr. Richardson of Massachusetts, Dr. Holbrook of New York, and Dr. Wiggin of Rhode Island, who were formally presented to the Society by the President, and invited to take a part in the discussions.

A communication from Miss Dr. M. O. Hunt, of Manchester, desiring to become a member of the Society, was read by the Secretary.

No references being given, *Voted*, That it be laid upon the table.

Dr. ROBERTS made a verbal report, and introduced the following resolutions on the death of Dr. ALVAH MOULTON of Ossipee. Accepted and referred to the Committee on Publication.

Resolved, That in the death of Dr. ALVAH MOULTON, of Ossipee, this Society has lost a brother, who, for his sincere desire to promote true medical science, for his constant attendance for a long series of years upon its meetings, for his conformance to its by-laws in his every-day practice, and for his great love for the medical profession, was rarely excelled.

Resolved, That we sincerely mourn his loss, and sorrow most of all that we shall see his "pleasant face no more."

Resolved, That a copy of these Resolutions be forwarded to the widow of the deceased.

A committee, consisting of Drs. Webster, Eastman and Mason, was appointed to investigate the charges against Dr. S. B. Kelley, of Franklin, for violation of the Code of Ethics.

Dr. BUCK read his Oration. Subject—*Medical Progress.* Accepted and referred to Committee on Publication.

Voted, That Dr. Robinson, Committee on Diseases of Females, and Dr. Wheeler, Committee on Sanitary Condition of Almshouses, be continued on the same committees for another year.

Dr. HOW read his report on Surgery. Accepted and referred to Committee on Publication.

Dr. KINGSBURY, one of the delegates to the Dartmouth Medical College, read their report, and Dr. Conn read a report from the Committee on Registration. Both were accepted, and referred to Committee on Publication.

Voted, That Dr. Hall be the Committee on Toxicology another year.

Notice being given that a bill to legalize dissections had been introduced into the Legislature, and was now under consideration by the Committee on Judiciary, Drs. A. B. Crosby, Dixi Crosby, Buck, Robinson, Eastman and Smith were appointed to appear before the committee and advocate its passage.

The Committee on Nominations made their report, in which the following named Fellows were presented as candidates for the various offices of the Society.

Voted, That the Secretary deposit the report as a ballot, by which the officers and delegates were elected, as follows:

PRESIDENT.

WILLIAM W. BROWN, M. D., Manchester.

VICE-PRESIDENT.

WM. H. H. MASON, M. D., Moultonborough.

SECRETARY.

G. P. CONN, M. D., Concord.

TREASURER.

THOMAS WHEAT, M. D., Manchester.

COUNCILLORS.

Albert Smith,
E. K. Webster,
Lyman B. How,
D. F. Parker,
J. F. Hall,
C. F Kingsbury,
Geo. B. Twitchell,
B. H. Phillips,
Leonard French,
T. J. W. Pray,
J. C. Eastman,
D. P. Goodhue.

CENSORS.

David S. Clark,
Val. Manahan,
Ira P. George,
Nathan Call,
Harrison Eaton,
A. F. Carr,
E. F. McQuesten,
C. R. Kelley.

DELEGATES TO DARTMOUTH MEDICAL COLLEGE.

H. B. Burnham, Epping.
Val. Manahan, Enfield.

DELEGATES TO OTHER STATE MEDICAL SOCIETIES.

Massachusetts—Thomas H. Marshall, James B. Abbott.
Rhode Island—E. K. Webster, Leonard French.
Connecticut—S. M. Whipple, Nathan Call.
New York—J. C. Eastman, A. B. Crosby.
Vermont—Albert Smith, C. F. Kingsbury.
Maine—Levi J. Hill, J. F. Hall.

TO THE AMERICAN MEDICAL ASSOCIATION.

Eben H. Davis, Leonard French, J. C. Eastman, George A. Crosby, T. J. W. Pray, George B. Twitchell, W. D. Buck, A. Smalley, J. W. Parsons.

STANDING COMMITTEES.

On Surgery—Moses W. Russell.
On Practical Medicine—Harrison Eaton.

On Diseases of Females—A. H. Robinson.
On Necrology—Thomas H. Marshall.
On Sanitary Condition of Almshouses—J. H. Wheeler.
On Fractures—George B. Twitchell.
On Early Medical History of New Humpshire—A. B. Crosby.
On Publications—G. P. Conn, Thomas Wheat, Nathan Call.
On Arrangements—S. L. F. Simpson, M. W. Russell, G. P. Conn.

Upon the recommendation of the Committee, the Society

Voted, That the next annual meeting be held in Concord, on the third Tuesday and Wednesday of June.

Adjourned until half past seven in the evening.

EVENING SESSION.

Called to order by the President, Dr. BROWN of Manchester.

Dr. SMITH, for the Council, reported favorably upon the application of George H. Larrabee, M. D., of Suncook, and recommended that he be admitted into the Society. Report accepted, and on ballot Dr. Larrabee was elected.

Dr. WEBSTER, from the committee appointed to investigate the charges preferred against Dr. S. B. KELLEY, of Franklin, for violation of the Code of Ethics, reported that the charges were fully sustained, and recommended the adoption of the following resolutions:

Resolved, That whereas Dr. S. B. KELLEY, of Franklin, has been found guilty of open and persistent violation of the Code of Ethics of the American Medical Association and this Society, (Chap. II., Art I., Sections III. and IV.,) by advertising and using a secret remedy for the cure of cancers, ought and hereby is expelled from this Society.

Resolved, That the Secretary be instructed to furnish Dr. KELLEY with a copy of the foregoing resolution; also to transmit a copy to the Secretary of the American Medical Association.

Unanimously adopted.

The following resolution, from Dr. TWITCHELL, of Keene, was read by Dr. Gage and adopted by the Society:

Resolved, That the Secretary be instructed to notify, in writing, within one month after the adjournment of the annual meeting of this Society, all Fellows of their appointment upon committees, and also, within the same time, furnish all delegates with a proper certificate of their election.

Voted, That Drs. Webster, How, Robinson and Gage be appointed a special committee to compile and publish a new edition of the Constitution, By-Laws and Code of Ethics of the Society.

Adjourned until eight o'clock Wednesday morning.

WEDNESDAY, JUNE 16.

MORNING SESSION.

Called to order at 8 o'clock.

Several interesting cases were reported and discussed by the members.

Voted, That Drs. Conn, Robinson and Russell be appointed a committee to confer with and assist the Secretary of State in compiling the registration report of the State.

On motion of Dr. WEBSTER it was

Voted, That the By-Laws of the Society be so amended that the election of officers shall take place the second day of the session instead of the first.

On recommendation of the Council, Dr. M. R. Holbrook, of Poughkeepsie, N. Y., was elected an honorary member of the Society.

No further business being before the meeting, on motion of Dr. SMITH, it was voted to adjourn, to meet at Concord the third Tuesday in June, 1870.

G. P. CONN, *Secretary.*

ANNUAL ADDRESS.

BY LEVI G. HILL, M. D., PRESIDENT.

FELLOWS, —

Custom and our constitution require me to read a paper before you on this occasion upon some subject connected with the practice of medicine or surgery. Were I to read an elaborate essay describing the most complicated and important piece of mechanism of which we have any knowledge; to give a minute description of any of the organs of this incomparable structure, to portray the uses or offices of the manifold parts of this wonderful harp of more than a thousand strings; to detail the diseases to which it is subject, or the preparation and administration of remedies which would effect their cure or conduce to their alleviation; to narrate remarkable cases occurring in my own practice, or in that of others, like that of the man who lived a dozen years after a crowbar passed through his brain, or the still more remarkable cases of Dr. Holston of Connecticut, formerly of the United States army;—if I were to go back through the ages to the days of Hippocrates, and trace the progress of medical science to our times of modern experience, and the almost incredible advancement in all departments of our profession, noticing

the improved or newly devised instruments which so greatly enhance the comfort and convenience of both subject and operator in the varied cases presented for surgical treatment; or were I to treat any particular case or subject in medicine or surgery, I might, I fear, give only what you already know, or can find written out in books or journals to which all may have access, and in a more acceptable form than I could hope to present it. Indeed, I do not flatter myself with the idea that I can enlighten you upon any subject, but, with the hope of imparting a useful hint, I propose to glance at the *Labors* and *Rewards* of a Physician and Surgeon.

I say physician and surgeon, because, while in some parts of the world these are distinct and separate professions, in our community men are educated for and practice both medicine and surgery. In most avocations *labor* means an exercise of the powers either of the body or the mind, but to the physician and surgeon it implies an exertion of both.

It is said "man is a lazy animal;" and he often seeks to avoid labor, mental and physical, and there can be no doubt some men absolutely labor harder or suffer more in trying to avoid certain duties than they would in their prompt performance. There are those who look upon the declaration "in the sweat of thy face shalt thou eat bread," as a punishment or dire calamity, but I prefer to regard it as a great and good law, which if cheerfully obeyed would contribute largely to our highest happiness and well-being. Indeed, useful, persevering toil is well calculated, and was evidently designed by the Great Law-giver, to promote our health and greatest prosperity. All know that exercise promotes strength and vigor. Work is a necessity, and, notwithstanding the general prejudice against it, it is the grand, the all-important motive power of this world. Witness its achievements in all the departments of life. Indeed, we may well inquire what has been or can be

accomplished without it? And cheerful, energetic effort rarely fails of success in any laudable enterprise. I say *cheerful*, and would emphasize it, because this should be regarded as an important element in the performance and success of all labor. How can any one perform well a task which he approaches with reluctance or aversion? In one case he fears, doubts and fails before he starts; while in the other confidence and determination make success more easy and its achievement undoubted, even before much effort has been put forth.

But you may ask, Why talk of labor to a society of men who are already taxed, mentally and physically, almost beyond their powers of endurance? It is readily admitted that medical men toil hard to procure their preparatory and medical education, that after entering upon the practice of their profession they devote themselves more entirely to their duties than men in any other calling. Day and night, week-day and Sunday, in sunshine and storm, for rich and poor, near and remote, and from early life often to its very close, goes the physician in his beneficent work. And in view of the arduous and almost incessant toils of his life, it may be asked, Would you have him do more? It is true, as above admitted, medical men exert their powers to a wonderful degree.

In addition to the physical labors, exposures and hardships, the half of which cannot be told, they have mental anxieties and trials which far outweigh any bodily toils of which man is capable. It is no small matter to take upon ourselves the care and responsibility of a single case of severe sickness, connected with which may be all that is dreaded or dear to us in this life or that beyond. Suffering or relief, beauty or deformity, competency or poverty, life or death, happiness or misery here and hereafter, may be, and I fear are, often included in results.

If a patient is suffering, attention and skill may relieve

that suffering, while inattention and ignorance will protract it. If life is in peril, skill saves it; ignorance or neglect sacrifices it. If the sustenance of a family depends upon the restoration of a father to health, and he is not so restored, poverty and misery may ensue. If through lack of assiduous care a man dies unprepared for the future, who can say what measure of responsibility rests upon those who failed to devote themselves to his recovery? And if so much attaches to a single case, how great must be the mental strain of an honest and earnest physician who has many similar cases under his charge, even at one and the same time.

Such ceaseless efforts seem at times almost insupportable, and we would often have them lightened, but seeing our fellow-man in suffering or peril, we endeavor with all the means in our power to raise him from his painful or dangerous position; and another and another, and so on through a lifetime of anxiety and toil. And now again it may be asked, Is not all this enough?

Gentlemen, every man of sane mind and common intelligence must admit that physicians often, and perhaps generally, work too hard and too much. *Too hard* when they are not well prepared for the duties before them, or do not apply themselves cheerfully. *Too much* when they do more than strength and health can tolerate. And yet can it be said in truth that we accomplish enough, or as much as we might with advantage to ourselves and others? Do we systematize our time and labor? Do we lay out the work of each day, week, month or year, and "go by the bell," as do manufacturers or workers in other fields? Do we make the most of our time and opportunities? Do we make careful and thorough investigations, and note our observations as we pass among our patients? Do we mark the healthy or unhealthy localities in which we find residents, with the atmospheric or other agencies producing or influ-

encing disease or destroying health and life? Do we observe and watch new forms or phases of diseases and note carefully their results? Do we search as diligently as we might for causes, effects, cure or results of diseased action? Are we exerting our powers of body and mind to attain those heights of influence and usefulness which have been, and are now, occupied by so many of our professional brethren? Here let me say, there are undoubtedly some natural differences in the powers and capacities of men, but by no means so great as may appear upon the surface.

We can all call to mind men who have reached high positions in their various callings—men who have "made their mark" and left rich legacies to their fellow-men—men whose names occupy conspicuous places in the book of fame, yet were not men of extraordinary native mental endowments, but who by indefatigable exertions had won their way to honorable distinction. Neither can it be said that these men had advantages for reaching their heights which others may not enjoy or possess.

Are not the avenues through which Sydenham, John Hunter, Nathan Smith and R. D. Mussey passed, open equally wide to each and all of us? I mention these few names not because they alone are examples of the idea in mind,—for there are many, dead and living, some in this society,—but from the fact that they are good and familiar illustrations of what application, industry and perseverance can accomplish, even under seemingly unfavorable conditions.

Thomas Sydenham, born in the first quarter of the seventeenth century, had his attention turned to the study of medicine by Dr. Coxe of London, with whom he accidentally met, and pursued the subject so assiduously as to become one of the most distinguished physicians of his time. I say he pursued the *subject* rather than the study of medicine, not only because he did not have the amount

of observation and experience which is open to us, and paid little attention to the doctrines of his predecessors, but for the reason that he relied mainly upon his own diligent and careful research and observation of the progress of diseases, whence the natural indications of cure might be derived. By his untiring industry and persistence, under what would now be thought very unfavorable circumstances, he won the highest eulogiums, and his biographer says "he has been universally acknowledged the first physician of the age in which he lived."

John Hunter, born about eighteen hundred and twenty-eight, whose early education was sadly neglected and deficient, was apprenticed to a carpenter who failed in business, when young Hunter had his attention turned to the study of medicine and surgery. Instead of loitering, or being in great haste to get into practice, as is now quite too common, it is said of him, "after laboring about ten years with unexampled ardor in the study of human anatomy, he turned his attention to that of other animals with a view to elucidate physiology." It is unnecessary to follow him in his course of experiment, observation and research, but suffice it to say, by his tenacity of purpose he became one of the most prominent physicians, surgeons and authors of the age in which he lived, or perhaps we may say any other in the world's history.

Dr. Nathan Smith commenced his medical studies late in life, with a limited preparatory education, and at a time when and place where the facilities for acquiring a thorough professional education could by no means compare with those to be enjoyed by young men of the present day; but, by indomitable energy and an irresistible will, he became a justly celebrated physician and surgeon, founded a medical school, did great good in his life-time, and left imperishable fame for his state and profession, as well as a name revered by his fellow-men.

The late Prof. R. D. Mussey, remembered by many of the members of this Society with pleasure and gratitude, was great and good, and his name is enrolled high among the distinguished physicians and surgeons of his generation. But I will not speak of Prof. Mussey at length, for another will do full justice to his name and character this evening.

It is said of the late Hon. Daniel Webster, that he usually did a day's work in the morning, before most men had started, and was ready to engage with others in the faithful and efficient performance of the duties of his official position.

Another marked instance of industry and success, is that of the English Premier, Gladstone, who, while occupied in forming his ministry, attending to and preparing for the elections, defending his position in reference to the Irish church and popular education, and while he was supposed to have his attention fully engrossed with these matters, found leisure to prepare a work on the influences of Phœnecian and Greek civilization—to give readings on Sir Walter Scott, which showed that no æsthetic critic in England had entered more deeply into the romance of literature than this great minister of finance, this man of figures and hard facts—to practice the piano with an assiduity which enabled him to play Beethoven's sonatas at his private concerts—and also to contribute able articles to several literary periodicals.

The last two examples, though perhaps irrelevant, were chosen as illustrious examples of what may be achieved if the purpose is fully formed and the requisite means used to secure the desired end.

I may be allowed to inquire why it is, that in all parts of the globe there are found men in every profession and business, who stand prominently above their fellows, with influence, fame and rewards far above their associates in the same calling or department? Much as may be claimed for

superior genius or native talent, we still believe the wide difference is mainly attributable to the inequality in the amount of well-directed and skillful labor applied to the accomplishment of the object sought. If it is said all cannot excel, I reply, If we take our place, work industriously and cheerfully as we can, if we do not excel all our fellows, we may make a much nearer approach to doing it than is possible without observing these conditions. I entertain the opinion that every member of this Society may make himself the possessor of all necessary books and journals, and find time to read them, say thirty pages a day or ten thousand a year, aside from general reading. Some men have not only read, but written books, while riding to and from their patients. We may also supply ourselves with all necessary instruments, apparatus and a very respectable museum of specimens and preparations in anatomy, materia medica and mineralogy. Many have done so while engaged in extensive practice, and others can do the same, or more.

With sufficient application and industry, we may acquire such knowledge of diseases and remedies, of instruments and their uses, that we hasten with confidence to medical or surgical cases, and treat them so skillfully and successfully, that the patients and friends are not only highly gratified, but pay the fee cheerfully, and the community look about for other similar cases or sufferers and advise them to place themselves under your care and treatment immediately.

It will be admitted that physicians not only toil hard, but that they do a vast amount of labor gratuitously; that they are daily imparting instruction or giving advice to old and young, in relation to diet, exercise, clothing, ventilation, and the various means of preserving health and promoting longevity; that they are forward in every enterprise calculated to elevate the race. Indeed, there are comparatively few of the essential improvements in the arts

or sciences of modern times, which may not be traced to the fertile brain, research and industry of some sensible physician. Gentlemen, ours is a high, holy, noble, generous, god-like profession; aiding men in the full and faithful performance of all the duties and functions devolving upon them; restoring diseased bodies to health, and bringing back reason to disordered minds. And it may be said, without fear of contradiction, that a faithful and conscientious physician more fully and truly devotes himself to his fellow-men than any other citizen of the commonwealth. He is able, from his intimate relations with all classes in the community, and the varied times and circumstances under which he meets his patients and patrons, to accomplish by precept and example what another with less intimate associations would find impossible. The way being open, the means at our disposal, the power for so great good being entrusted to our hands, such grave responsibilities resting upon us, let us avail ourselves of all the aids possible to strengthen us for so great and all important duties. Let us apply ourselves to the tasks of our profession with cheerfulness and assiduity, seeking success in its best and noblest sense, the highest good of our patients and all with whom we come in contact, trusting, notwithstanding opposing forces, unjust, cruel even, as they may be, that honest, earnest endeavors to serve our fellowmen will be followed by due rewards.

But, in the face of much apparently unrequited toil, you may inquire, how are medical men rewarded for their self-sacrificing and untold mental and physical labors? We may bear in mind the fact, that rewards in this world are not distributed equally or equitably, and probably cannot be. The imperfections of poor humanity forbid perfect equity. Nevertheless, there are rewards of no mean importance which attach to our profession, and which most, if not all, its members may enjoy.

First, there are pecuniary rewards, and, notwithstanding there are members of our profession who look upon any allusions to such rewards, especially in connection with the direct doings of medical associations, as beneath the dignity and character of our generous and noble calling, I am happy in having an opportunity to allude to this matter, though briefly, before this assembly, wishing to turn your attention to a fact quite too much overlooked and disregarded. I believe the men who thus object eat, drink and dress, like other men; that their families have necessities and enjoy luxuries in common with others; and that it is about as important that a physician incur expenses and pay his debts, taxes and subscriptions, as any other individual; and, so far as I know, he has about as much to pay as anybody. It would seem that a permanent and comfortable home, suitable furniture for house and office, proper means of conveyance to his distant patients, education at home and abroad, are as necessary for a physician's sons and daughters as for others. And I am so befogged, if you please, that I do not see why a physician's family may not indulge their taste or inclination for music, or the so-called fine arts, or why men of our profession should not have ample means for themselves and those dependent upon them. To me, the frequently observed fact that physicians live and die poor in this world's goods, leaving a family without adequate means of support, and that, too, when the father and husband had toiled during a long life, it may be, in a community abundantly able to have remunerated him in a proper manner, and the members of which were strongly attached to their "beloved physician" during his life-time of active service among them, but who, too often and too soon, grow cold, and forget the now paupers, but once dear jewels, of him who had served them so long and so well,—I say, to me the fact is exceedingly painful, and I insist something must be wrong. We suppose the "laborer is worthy of his hire"

no less in our profession than elsewhere, and, although there are so-called pecuniary rewards offered us, they are by no means adequate, or what they ought to be. It may be difficult to make out the diagnosis, or prescribe the proper treatment, but the symptoms have their indications, and would seem to say, *charge more* and *collect better*.

True, there are those who complain of high charges now, and so they would if you charged but half as much. True also, some don't pay if asked, or when asked; some are slow; some poor. Forgive the poor, but treat others as lawyers, merchants, mechanics and farmers do: collect what is justly due you, and that as promptly as the case demands.

What would be thought or said of a farmer, mechanic or merchant, who should allow his account to remain uncollected and accumulate for many years? Or who would wonder at his failure in business, or pity his poverty? All would exclaim, he alone is at fault, and deserves his fate. If we are well prepared, and practice our profession faithfully and skillfully, the man is unreasonable who denies proper pecuniary compensation for services rendered. And it will be found much easier, generally, to collect bills early, when devoted and anxious attention are fresh in the recollection, and a feeling of obligation and gratitude is prominent in the mind of the patient or patron. Failing to do this, obligation seems less, gratitude grows cold, other circumstances intervene, diminishing the disposition to pay, and in quite too many instances the law of limitation squares the account.

Is there any good reason why a physician should spend years of time, thousands of dollars, in preparation, and devote a lifetime to the practice of his profession, and be so narrowly limited in his pecuniary rewards? I think not; and am pleased to know that that there are many members of our fraternity who are enjoying the fruits of their labor,

the rewards of industry, skill and true devotion to the profession of which they are worthy members.

It may be presumed that any man with good health, and under ordinary circumstances, may and ought to secure a competency for himself and those dependent upon him. Indeed, failing to make suitable provision for our own household has been declared by high authority worse than infidelity. It is not necessary to make a *god* of money, but it is expedient to supply the needs and reasonable wants of those dependent upon us, and provide for future contingencies, or "a rainy day."

I need not say more of pecuniary returns, for although these do not, in my humble judgment, command sufficient attention, such necessities are *known*, and quite too often *severely felt*, by worthy members of our fraternity, and it may be deemed as much a duty to seek and treat ills in the profession as elsewhere.

Another of the rewards which cheer us in our work is the heartfelt gratitude of those whose lives may have been in extreme peril, but who, by the divine blessing, and our assiduous and skillful attentions, have been rescued from the very jaws of death, and restored to health, friends and usefulness in the community in which they live. Patients and friends often give expression to this feeling or emotion, and sometime by more solid tokens than that of the lip. Although this may not always be awarded when and where it is due, it is grateful even to those who claim only to have discharged their duties with fidelity.

We may refer also to the social position of every well educated physician in the community where he resides. High scientific attainments, a large fund of general knowledge, an irreproachable moral character, secure an elevated social standing for all possessing such qualifications.

Still another is the consciousness within our own breasts of duty well performed. To the faithful laborer in this

broad field of usefulness, there is no greater or more important reward to which he can attain than this same consciousness. Pecuniary compensation may be withheld, the meed of gratitude may not be bestowed; but the full assurance that we are well prepared, and have discharged our duties with promptness and fidelity, that we have done what we could to relieve, to cure, to elevate, to save,—in such confidence there is a reward not to be denied us or measured by any amount of base coin.

But, gentlemen, circumstances are often transpiring which remind us that we are mortal, and must soon pass from this state of existence, and a very natural question would seem to be, Where are we going?

I suppose we all believe in a future, an eternal state of being; in rewards for the good which far transcend any present imaginings of our finite minds; a life of health, beauty and glory, hardly to be named in connection with the present, and which shall last forever. If such rewards are "laid up," as I doubt not, I most confidently believe they are in store for the faithful, Christian physician.

REPORT ON SURGERY.

BY LYMAN B. HOW, M. D., OF MANCHESTER.

MR. PRESIDENT AND FELLOWS,—

If it is agreeable to you to be congratulated at all on being physicians and surgeons, it is eminently appropriate that I should congratulate you that you live in a time when both our science and art are making wonderfully rapid progress. Chemistry and the microscope especially are constantly adding facts of vast importance to the sum-total of our knowledge. Science has almost supplanted superstition, theory is giving place to fact, and simplicity of treatment is fast superseding the complex theriacas and diascordiums of the past. But I must congratulate you most especially that you are living, as I believe, in the dawn of a new and glorious era for our profession in this country. Medical education is beginning to receive the attention its vast importance demands, and out of these discussions by the American Medical Association and this Society and others, practical results are already being evolved. The profession at large is realizing more and more that science and learning are the true and only basis of the healing art,

and the old sneer that "well-read men are not generally very practical" will soon serve only to point the ignorance of the ass who brays it. The age predicted by Marshall Hall more than twenty years ago is close before us. "The time is coming," said he, "though it may be far distant, when the mere practical man will be viewed as the mere empiric which he is in fact; and when, to know the nature and mode of action of the springs of life will be accounted the appropriate preparation for the investigation, prevention and treatment of disease."

But one of the most cheering signs of the times is the fact that the public are at last beginning to realize the fact that it is of vital importance to them that they should be provided with a body of educated medical men. Several of the State legislatures have enacted laws legalizing dissection and providing material for the practical study of anatomy, which is the very corner stone, yes, the *sine quâ non* of medical science. The legislature of Wisconsin has enacted a law disqualifying quacks from giving testimony in courts on medical matters, and to prevent their collecting fees, and the legislature of Ohio (all honor to it!) has enacted a law requiring all medical practitioners to suspend practice who have not received a regular diploma.

Now, although medicine may claim her share, yet to surgery must be given by far the most credit for this change in public opinion, for the results of surgical operations are more palpable and more readily appreciated by people in general. A man may employ a quack to doctor him, but unless he be an irreclaimable fool, he will not have one perform a difficult operation, or attend a broken bone. It is worthy of note that no quack has ever made an improvement in surgery, and quacks generally refrain from entering a field where their demerits will be made conspicuous. As the results of surgery are so apparent, it is not strange that improvements therein have been more numerous and

more grand. Medicine can hardly point to such obvious triumphs as surgery has recently won in its operations for the exsection and resection of bone, for recto- and vesico-vaginal fistulæ, for the restoration of lost parts, in the uniting of bones after delayed union from fracture, in iridectomy, lithotrity, forcible dilation of stricture, and in the removal of tumors of the glottis by the aid of the laryngoscope.

The limits of this paper will allow me to merely mention these, for I must pass on to speak of some comparatively simple, yet not unimportant topics. And first, on the treatment of wounds. When will the profession, to say nothing of the world at large, learn that *nature* heals fresh wounds, and that man *cannot* do it, and that, if the very gently cleansing of them with pure water and carefully approximating the edges be excepted, she will not even tolerate assistance. It is *self evident* that the very best possible condition raw surfaces can be in to unite well is the natural one in which they were made. Then they will unite cell to cell, molecule to molecule. Consequently, if we apply any foreign substance to the sides of the wound, we either coat the cells over so they will not come in contact, or we change their structure, and thus substitute disease for health. Therefore, anything that coats over the cells like an ointment, or irritates them like rum or arnica or collodion, or that last cure-all, carbolic acid, ought to be consigned to limbo to be employed in the treatment of that imaginary condition, which is a very contradiction of terms, "adhesive inflammation." If any one chooses to cover over the wound with tin-foil, or a rag greased a very little with mutton tallow to keep it from sticking, or with a wet rag or a perfectly dry one, this is all proper; but if any foreign substance gets down into the wound, it will do more harm than good. Put on a soft rag and secure it, and then let it alone till there is some better reason than mere curiosity

for removing it. Tom Potts seems to have known this, or at least he practiced it two hundred years ago, for a poet of the seventeeth century says

> "Tom Potts was but a serving man,
> But yet he was a doctor good;
> *He bound his kerchief on the wound,*
> And with some kind words he staunch'd the blood."

The history of the "weapon ointment" is one of the saddest commentaries I know of on the fallibility of human judgment and the proneness of men to attribute the results of natural processes to supernatural agencies. This ointment was prepared in a very elaborate manner, and it was even considered necessary that the celestial signs should be of a certain kind, in order that the remedy should be perfectly reliable. There is no doubt that it was wonderfully successful above all our ointments in common use, and that wounds healed under its employment with great rapidity — union "by the first intention" occurring quite frequently. The wound was carefully dressed with dry rags, and the ointment was applied to the weapon that caused it! It was recommended by Fabricius Hildanus, a physician of great repute, and even so profound a reasoner and keen observer as Lord Bacon could not resist the popular evidence in its favor, his writings showing that he partially believed in it. How strange that some one could not have seen the transparent fallacy of all this, and have distinguished the "post hoc" from the "propter hoc."

A malady for which we have been doing too much is carbuncle. My own experience in letting them alone extends to one case of medium-sized carbuncle, four or five inches in diameter, which I did not open for the simple reason that the old gentleman who bore it would not let me. But he got along with it, I believe, just as well as though it had been slashed in several directions, or divided subcutaneously, or ablated completely. Two of our surgeons, Dr.

Twitchell of Keene and Dr. Buck of Manchester, and perhaps others, have for several years advocated and practised leaving them to poultices only, and recently Mr. Paget has taken very decided ground in favor of the same treatment. Let us try it.

I have employed local anæsthesia with rhigolene and ether, both repeatedly, but cannot say that I am very well satisfied with it. I have sometimes opened felons and abscesses, and the patient has either not experienced any, or only a little, pain; and at other times I have applied it just as thoroughly, and the patient has complained bitterly, so that I consider it an uncertain agent. I never could see that the healing process was materially retarded after its use; but its application causes some pain, sometimes considerable, and the hemorrhage after the incision is much greater on account of the reäction that ensues. I have for more than a year used nitrous oxide as an anæsthetic for opening felons, and am very much gratified with its effects. It is sure, speedy in its operation, not unpleasant to inhale, and the patient can go home in a few minutes from the time he begins to inhale the gas. I have not seen or heard of any ill effects from the gas since the proper mode of giving it was understood, — say for the last two years, — while it is given frequently every day by our principal dentists.

Our treatment of inflammation of the mucous membranes is simpler, less painful, and I am very sure more successful, than formerly. For an inflamed conjunctiva I order to be applied, from two to six times a day, very weak solutions of borax or sulphate of zinc in pure water, always being very careful to caution the patient never to use the mixture so strong as to produce much pain. I want him to just feel it a little for a very few moments. The patient should look up to the ceiling and draw down the lower lid while some one throws in a little of the liquid from a tea-spoon. Then he should at once look down and lift the upper lid

from the eye-ball so the fluid can run up under it. In an adult the latter procedure will be best while the fluid is thrown under the upper lid. In scrofulous ophthalmia, milk, eggs, meat twice a day, syrup of the iodide of iron, and the lotions just mentioned, should be ordered; and where there is ulceration, a smooth crayon of sulphate of copper should be very lightly and rapidly passed across the upper lid, drawn off from the ball, once a day or every other day. The stimulating effect of this will cause the ulcer to disappear very rapidly. Powders, strong collyria and nitrate of silver should never be applied to inflamed eyes, and the same may be said of poultices and close bandages. From an extensive experience with inflamed eyes, I am convinced that mild measures and *cleanliness* will almost always be sufficient.

I doubt whether we should be worse off if nitrate of silver were henceforth banished from use. I saw a man recently, with a huge, permanent, almost black stain under his eye, from using this substance in a lotion. Some practitioners even use it in gonorrhœa, which amounts to about the same thing as advertising a man's disease on a clapboard attached to his back, for washerwomen do not generally consider themselves under any professional ban of secresy. When shall we learn that gonorrhœa is to be treated like any other acute inflammation, with rest, light diet, frequent soothing injections of warm water containing a very little of some astringent — acetate of zinc being as good as anything. I always give the same direction concerning injections as for inflamed eyes, and direct the patient to carry the bottle to bed with him so the solution will be warm for use. If the urine is acid, a little liquor potassæ with spirits of nitre may be given. Later, copaiba may be given, but I use very little of it. I learned this gentle mode of treatment twelve years ago of an eminent surgeon in Massachusetts who had had a very large

experience, and I see no reason to change it for carbolic acid, or that last invention (of the adversary), pipe-stems of cocoa butter.

There is one class of diseases which are very often overlooked, or badly treated — affections of the rectum. I know an old physician who has had under his care for two whole weeks a young lady who passes fresh blood profusely, her bowels being regular, and yet he has never proposed an examination of the rectum. He is giving suppositories. Some time ago a gentleman came for me in the evening to go and see his wife, who was a great sufferer from cancer of the rectum, as he supposed. That day she had made a great effort to sit at the table once more, and a soft pillow was placed in the chair and she on it, but she was compelled to go to bed again. She was worn out with intolerable suffering. One surgeon, being unable to find cancer, had called it spasm of the sphincter, and Belladonna ointment was used in vain. I told her her countenance and symptoms did not indicate cancer to me, and proposed an examination. She refused, saying she had been examined several times, and had never received anything but increased pain from it. I declined to prescribe. Then she consented. Oiling my finger thoroughly, I passed it very slowly and carefully, pressing against the side that was least tender, and examined very thoroughly. I felt a tumor of some sort, probably a polypus, unusually high up, and found there was an exquisitely tender spot posteriorly — probably a fissure. I told her there was but one way to do — to administer ether, dilate the sphincter, and examine carefully under sun-light. The next morning, Dr. Buck being present, I did this, and found a large polypus, high up, which I ligated, and a deep fissure, for which I introduced both thumbs into the rectum, and then separated them steadily and forcibly till I overcame the tonicity of the sphincter entirely. Her bowels were kept shut up by opium, and her

diet restricted to flour porridge thoroughly boiled in milk. At the end of ten days a dose of oil was given, and, before it operated an enema of warm water, and the cure was complete. She is very well now. She had a complete retroplexion of the uterus, but, as she suffers no inconvenience from it, I let it alone. This method of overstretching the sphincter, instead of dividing it, I have practiced in three cases, and have seen it employed in two, and Dr. Buck has since reported to me two cases,— in all of which no subsequent inconvenience has resulted (although in one instance I tore the muscle), the sphincter regaining its tonicity completely. I suppose the fissure irritates the fibres of the muscle, and the constant contracting and relaxing of these prevents the fissure from closing, and thus the intolerable pain is perpetuated — a very "morsus diaboli." This method was proposed by a French surgeon several years ago, but was not adopted, and was re-proposed by Dr. Van Buren to the Academy of Medicine in New York, at a meeting some time ago, at which I happened to be present. I immediately proposed the same operation to Professor Peaslee, for vaginismus, but have not heard of his employing it, and no opportunity has occurred to me. I know of no class of diseases for the cure of which patients are more grateful than those of the rectum, and yet how many there are in every community, who are suffering from piles, both external and internal, and prolapse of the rectum and fissure, just because their family physicians are keeping them along with ointments and suppositories. The knife for external, and the ligature for internal piles, are very sure remedies, and almost absolutely devoid of danger. Don't torture the poor sufferer with caustics.

I have had one case of disease in this region, which has annoyed me exceedingly, and the patient very much more. It is that of a middle-aged gentleman who suffered almost agony at night from intolerable itching of the lower part of

the rectum, and, to some extent, of the skin around the anus. Careful examination under a good light revealed only excoriation of the mucous membrane, such as might be produced by scratching. He has frequently awakened himself by the pain he had caused by digging the parts with the nails while sound asleep. He had tried many remedies for many months, and after he came under my care I tried many more, thoroughly,— such as bromide of potassium in large doses, tonics and alteratives and ointments and washes of various kinds, including carbolic acid, of course, in all strengths,— but all in vain, until one week ago I ordered some tapering pessaries of cocoa-butter and alum, ten grains of alum to half a drachm of the butter, softened with sweet oil. The first night he introduced one he rested better, the second very well, and during the week past he has continued to improve.

Now a few words on fracture-apparatus. It would be interesting to know how many surgeons in New Hampshire apply roller bandages to fractured limbs, and how many do not. I applied my last one seven years ago, in New York. I could not imagine what good that one did, except to give me a chance to show how well I could apply it after considerable practice on sound legs, and I have never since been able to discover their utility. They are a great bother, it hurts the patient to have them applied, they cover up the limb so we cannot see what is going on, and they frequently interfere with the circulation, and on that account have to be carefully watched, lest mortification ensue, as has happened. They are certainly not needed to steady the parts, since the side-splints of binders' board, or leather, or gutta percha, do that effectually. And lastly, those who use them do not get any better results than those who do not, according to their own accounts. Yet the authors of all our works on surgery advise them, with the exception of Hamilton. He condemns them plainly and pointedly. Dr. Buck, of

Manchester, must have been one of the first to venture to dispense with them, as he has never used them, and Dr. Josiah Crosby has not used them for very many years. What may be the practice of our other surgeons, I do not know.

In the way of fracture-apparatus we are very much ahead of our ancestors, because we study simplicity. I have a very ingeniously contrived splint, which it took me two hours of hard study to put together and find out the use of. It has any number of nice brass screws and brass rods with longitudinal and lateral and angular movements — in this respect far exceeding a compound microscope. But it is useless now, except as a memento, like some of those old muskets which hit the holder about as hard as the mark. All I want to take with me now to a case of fractured thigh, is Dr. W. D. Buck's fracture-bed and a piece of plain or carved board to lay the limb on, some pieces of gutta percha or binders' board, and some adhesive plaster for extending bands. Everything else belongs to the bed. It is very simple, portable and durable. The patient can be raised up high from his own bed and the bed made up, or a bed-pan placed underneath. He can be raised up to an almost sitting posture by merely turning a crank, and gently lowered again, and a weak person can manage a heavy one easily all through the treatment, without any assistance whatever. It can be put together almost as quietly as was the temple at Jerusalem,— there being no use for a saw, or hammer, or nails, or screw-driver. It can all be put into complete running order in a very short time, without moving the patient from his bed. With it there is no excuse whatever for bed-sores, and the vast amount of scientific erudition expended in writing the following, from Herring's Homœopathic Domestic Physician," will have been lavished in vain:

"Lying one's self sore. This may often be avoided when a vessel of water is placed under the patient's bed and renewed every day. Also by wetting the tender sore place with very cold water, or laying a wet cloth on it. A soft buckskin may be laid under the bed-clothes, the hair turned under and the *tail end toward the feet* of the patient, and by these means it may be either avoided or cured."

The poet of the "Western Lancet" thus comments upon these valuable therapeutics:

"Alas! How oft our efforts fail
To heal sad sores that will prevail
On fleshless bones, where e'en the skin
Has failed of strength to hold them in.
Now here we learn — the deerskin's tail
Has virtue that will much avail;
But tail to tail the man must lie,
Or all the magic virtues fly.
Suppose this author fast in bed,
On deerskins soft from tail to head —
The virtue would be just as great
If tail to tail or tail to pate,
For he that such clear nonsense pens,
Has little difference in his ends."

I must not forget to call your attention to a simplification of this bed, described by Professor Albert Smith in a recent number of the "Boston Medical and Surgical Journal," which may be constructed very quickly. This consists of a frame made of two lateral strips of plank, a little longer than the patient, connected at the ends by two strips about thirty-two inches long. Strongly secured to just above the middle of this frame, on its under side, should be a broad piece of thin, but strong, board for the nates to rest on, having in its centre a hole measuring six inches by seven and a half. On this piece there should be a good cushion stuffed with carded wool, having a hole in the centre very nearly as large as the one in the board. The front side may be covered with oiled silk. A thin board should be laid from this centre-board to the cross-piece at the foot of the frame, for the fractured limb to rest on, supported by a

cushion or cushions, or by a carved splint. An upright piece at the foot may hold a screw or pulley for the extension, and the foot of the bed on which this frame rests may be elevated so that the weight of the body may form the counter-extension. Strong ticking or duck may be tacked across the frame above the centre, to support the shoulders, and strips below the centre to support the sound leg. This is all that is really necessary the first day. The next day, an upright piece should be screwed to the frame opposite each trochanter of the thigh, and these connected by a horizontal cross-piece passing nine inches above the body of the patient. Two straps of leather or stout webbing, with buckles, should be attached to this cross-bar, the other ends being passed down between the thighs through the hole and back up over the upper edge of the board, and there secured by screws to its upper side, about nine inches apart. These bands should be well covered with a tube of buckskin stuffed with wool. Either band may be used. This is Burge's counter-extension, which so admirably obviates all danger of irritation, or worse, to the groin, and keeps off the weight of the bed-clothes. I have elaborated Professor Smith's description and have come more near to the original bed of Dr. Buck, which every surgeon should have in his closet ready for use. Now, instead of having the gearing overhead for raising this frame, as in Buck's and Jenck's apparatus, Professor Smith uses one tackle, fastened to the ceiling over the centre of the bed, with ropes to the four corners, or one pulley at each end. The pulleys should be securely fastened by a screw into a beam, or passed through the floor and secured.

While it has thus been my privilege and my pleasure to congratulate you, Mr. President and Fellows, on the many and solid improvements recently made in our art, and on the readiness and even eagerness with which these have been adopted by the profession, I must lament over the

pertinacity with which some of our brethren still cling to the constant employment of an agent which experience has abundantly proved to be but too often a deadly poison, so that the surgeon, whose very presence inspires the sufferer with firm hope of a prolonged life, is too frequently the very harbinger of a speedy death.

You will understand what I mean when I read an extract from a daily paper.

"Died on Christmas day, Mrs. J. S., of an over-dose of chloroform administered for the opening of a felon contracted in sewing for the poor. A coroner's jury was summoned to investigate, and they reported that the deceased died through misadventure, from the effects of three drachms of chloroform carefully administered."

Would that this were a solitary case! But the same item has appeared in an hundred papers at various times, with the name and the circumstances only changed. The report of the coroner's inquest might well be stereotyped for constant use in our weekly papers. Yes, every week counts its victim; every week a human being, assured of the perfect safety of chloroform, inhales its Upas fumes, and is hurried prematurely to his long account. Yes, chloroform is a *real* Upas tree. This time it is the growth of British soil, and has been transplanted thence to ours. The most eminent British surgeons (approaching from the windward side) keep propping up its inclining trunk. Its balmy odor, say they, "is sweet above all others; come, smell, and be exempt from pain"—in death. Why, as I write these very words, the June number of "The Medical News" is handed me, and glancing at the table of contents I read "Deaths" (not death) "from chloroform," and turning to the page I read as follows:

"Dr. Squibb communicated to the N. Y. Pathological Society a case of death from chloroform. The patient was the wife of a physician and the mother of eight children.

Drs. Hutchinson and Krackowizer advised the removal of an epithelioma of the tongue. Dr. Squibb administered the anæsthetic from a pint bottle containing two ounces of chloroform into which a coil of paper was immersed — the chloroform rising to the top of the coil by capillary attraction. She came readily under the influence of the chloroform, and passed through the intoxicating stage quite rapidly, but, some sensation remaining in the tongue, profound anæthesia was produced by allowing her to inhale from a napkin. No chloroform was administered during the operation, which was long and difficult, and during all the time her pulse remained good. After the removal of the growth, and just as Dr. K. was about to pass a stitch into the wound, the patient suddenly fainted, and despite all the efforts that were made for a long time, she never breathed again. It was Dr. Squibb's opinion that the cause of death was a direct poisoning of the nervous centers by the chloroform."

Surely there is no carelessness here. Dr. Squibb, one of the best of chemists, a physician who knows as much about chloroform as any man living, celebrated for making pure anæsthetics, has a lady die right under his own eyes, and attributes the death to "direct poisoning of the nervous centers by the chloroform."

Case second: "Dr. Finnell exhibited to the same society a series of specimens consisting of the heart, &c., removed from a little girl six years of age who applied to the N. Y. Eye and Ear Infirmary for treatment of convergent strabismus of the left eye. One drachm of chloroform was given, and then a second. Dr. Delafield proceeded to divide the internal rectus, while the patient was yet not completely under the influence of the anæsthetic. No more was, however, given. The child was quite restless during the operation, and a few moments after it was finished it was discovered that she had ceased to breathe. All the ordinary efforts to

restore respiration usually made use of were futile. The time from the commencement of the inhalation until death was fifteen minutes."

Then comes the same old account of the post-mortem appearances which has been published in magazines and works on pathological anatomy and medical jurisprudence time and time again, which is just as satisfactory as an account of the post-mortem appearances of sun-stroke and death by lightning,—they don't prevent our being obliged to see the same thing again and again.

This last case reminds me of one of the sad features of these deaths by chloroform, that they do not all occur during or after prolonged and critical operations, but very often when the anæsthetic has been administered for comparatively trivial purposes, and when very little has been given — such as for extracting teeth, or for operations for remedying slight defects of personal appearance, as in the second case already quoted. In trimming the wick a little, the whole flame was snuffed out, while the lamp of life was nearly full.

And another peculiarly sad feature of such cases is that death comes so unexpectedly, like lightning from a cloudless sky, and as suddenly. The confiding patient who has been promised speedy relief from suffering, submits herself calmly, yes joyfully, to the physician's care, goes quietly to sleep and awakes only in another world. *Iatros* was sent for, but *Atropos* came.

But do circumstances warrant this severity of language? Let us see. In the April number of the journal already quoted from are *three* deaths from chloroform. One that of a chemist of Sheffield who was about to have a piece of diseased bone removed from his leg. The account says "the patient's heart and lungs were examined prior to the use of the chloroform, and the quantity employed was exceptionally small; yet, after inhaling for but three min-

utes, the heart ceased to beat and the man was a corpse." Of the two other deaths, one occurred at the Leeds Infirmary, and the other at St. Bartholomew's Hospital. In the February number there are no less than *five* deaths reported from this "invaluable agent," which a recent English work says "has superseded ether." In these five cases, all English, it certainly "superseded" life. In one case it was inhaled to relieve pain in the face, in another for asthma, in a third for amputation, in a fourth for an operation for fistula, and in the fifth to a lady for extracting teeth — in which case the coroner's jury reported that "more than the usual precaution had been taken." In the January number is a lecture by Professor Billroth of Vienna over another sudden death. The professor talks very learnedly about the symptoms of impending collapse and about the post-mortem appearances, and about individual idiosyncrasies. He says "people die suddenly and unaccountably from tetanus or erysipelas after surgical operations;" all of which is a poor consolation to the relatives of the dead man, and no better reasoning than if he had said "people die natural deaths sometimes; therefore, let us kill somebody." He acknowledges the danger attending the use of his favorite anæsthetic when he advises his pupils never to administer it alone, but by all means to always have at least one assistant with them," and when he gives explicit direction about artificial respiration and tracheotomy, and galvanism. But he says not one word about ether except this: "The singular idea that a mixture of chloroform and ether is less dangerous than either of these substances used separately has been abandoned."

Here are eleven cases reported this year in six months in one medical journal. If we examine the same for 1868, we shall find fourteen cases, and in 1867, twelve, thus making thirty-seven deaths from chloroform reported in one small medical journal in two and a half years.

I set out with the intention of making a complete table of all the reported deaths from chloroform in the last five years, but I feel sick enough at heart already. Surely here are statistics enough whereon to base reliable conclusions. And does anybody believe that all the accidents from this agent find their reluctant way into our periodicals? The editor of the "Lancet" reports two deaths, the particulars of which he learned accidentally in private conversation. M. Barrier of Lyons states that "five deaths have occurred there to his knowledge, and only one case has been reported." No, no; the surgeons under whose observation these terrible calamities happen are far from anxious to see their names in print in such an unfortunate connection. And beside these who have died, how many do you suppose there are who have narrowly escaped death and have had the breath of life restored to them by artificial respiration and stimulants and galvanism? I can report three such cases; one where I was holding the deadly weapon myself. The patient came partially out from under the influence of that "perfectly safe mixture" of chloroform and ether, and I poured a little more on the cloth. Only two inspirations were taken when the pulse stopped beating under my finger, and the chest was as quiet as in death. Oh, the agony of those moments, seeming hours, while artificial respiration was being kept up and strong ammonia applied! The anguish of bereaved parents, the coroner's investigation, perhaps blighted professional hopes, — how they all rose up before me like a *fata morgana!*

Now, if we turn from all this and inquire what fatality has attended the use of ether of late years, we learn that there is not one single death attributed directly to it. Here we have complete safety substituted for imminent danger. We can give it without feeling obliged "to have at least one assistant with us," and without feeling ill at ease if the pole of a battery is not applied to the patient's

neck ready for instant use. Yes, we can leave it to our patients to inhale themselves to relieve pain and go to our beds free from all anxiety. Surely, were Sydenham living, he would rank ether side by side with opium as the *magna dona Dei* to suffering mortals.

Now, what are the arguments employed by those who continue to use chloroform?

First, "It is only *occasionally* fatal."

So is ballooning. But who wants to "go up" either way? Professor Billroth has seen chloroform administered twelve thousand times, and has lost but one patient by it. But the fatal time came at last. "I have made ten quick trips with that boat," said the owner of a sheet-iron boiler on the Ohio river. "Then thank God for your past good luck," said the government inspector, "and don't tempt death any longer." Must we all keep giving chloroform till we lose a man? And besides, who wants to be the five-hundredth, or even the twelve-thousandth man to be stricken from life as by a thunderbolt?

Secondly, "Chloroform is more speedy in its effects, and it smells better than ether."

So does prussic acid.

Thirdly, "It requires less of it and it is more portable."

I would rather carry around a quart of ether than two ounces of chloroform and a bottle of ammonia and a powerful galvanic battery.

Fourthly, "It produces less nausea."

But it kills!

A beautiful monument has been erected in the Public Garden at Boston in commemoration of the most precious of modern discoveries, ether, and I would humbly suggest that there be erected over against it one of black marble in memory of the victims of chloroform. The names of the deceased could not all be inscribed on it in very large letters, but the initials might be. On the pedestal let there

be an Englishman dying. With one hand let him tightly clutch a bottle of chloroform, and with the other let him be "throwing up the sponge."

True, ether has an unpleasant odor, and it frequently nauseates, and it is more inconvenient for us to administer it; but all these objections sink into utter insignificance when we merely mention the paramount fact that it is *safer* than chloroform. I do not wonder that John Bull should stick to chloroform so pertinaciously, for it is a child of his own, and the next best to ours; but why we should adopt a child who will let death into our houses while we are sound asleep surpasses my comprehension.

I very much doubt whether Providence will ever vouchsafe us an anæsthetic the use of which will be unattended with inconvenience. There are obvious objections to it — such as the temptation to immoderate use of it. Men would drown in its fumes the remembrance of their sins. A *perfect* anæsthetic, "a *sweet*, oblivious antidote," a real nepenthe, will not probably be discovered in this world. We shall only find it when we pluck "the leaves of the tree of life." But we will strive for it as we do after moral perfection.

ORATION.

BY W. D. BUCK, M. D.

GENTLEMEN,—

The society whose anniversary we celebrate to-day was established seventy-nine years ago, for the promotion of the Science and Art of Medicine. Our first president, His Excellency Dr. Josiah Bartlett, said, "I have long wished that the practice of medicine in this State, upon which the lives and health of our fellow-citizens depend, might be put under better regulations than in times past, and have reason to hope that the incorporation of the New Hampshire Medical Society, if properly attended by its Fellows, will produce effects greatly beneficial to the community, by encouraging genius and learning in the medical science, and discouraging ignorant and bold pretenders from practising an art of which they have no knowledge." This was said when the advantages for a medical education were limited, when perhaps a majority entered the profession by virtue of a license, — before the origin of Dartmouth Medical College. Nathan Smith, of Cornish, was elected a member seven years before he established that school. And his professional intercourse with the men who felt the need of incorporating this society to elevate the profession in this

state, may have led to a movement which resulted in that school. We believe that the originators and early members of this Society manifested a zeal which has long since died out, and that their efforts were all directed in one channel — the elevation of the profession. Dr. Bartlett, during the first four years, gave about one hundred and fifty volumes of his library, standard works, which the Society voted to letter on the back, in gilt, "Bartlett to the N. H. Medical Society." If any member has a volume thus lettered, let him add in *guilt*, "Stolen from the N. H. Medical Society." During the first twenty years about two hundred volumes were added to the library by purchase, at different times, making three hundred and fifty volumes. And every two or three years a committee was appointed to recommend suitable books for medical students.

Papers were read and discussed, orations, delivered by such men as Nathan Smith, Mussey, Perkins, Twitchell, Asa Crosby, Ramsey and others, ordered to be placed on file, and sometimes to be printed. Members were continually disciplined for consulting with irregulars, for presuming to question the utility, publicly, of any orthodox remedy,— even for the slightest ethical obliquity; were obliged to pay their assessments, or be sued, and poor Peter Green was driven to the necessity of shoving up his library on two occasions, for arrearages. A committee was appointed who selected his best books, and added them to the library, whether or not (to use a legal phrase) by a mesne process, I don't know. The scanty records of the doings of this society for the first thirty or forty years show those men to have been terribly in earnest, and the record is more complete during the first than the second thirty years. In 1813, it was voted to loan their books to the district societies, with the understanding and vote that they should be returned at every annual meeting at the expense of the district societies.

The district librarians were appointed by the state society, and held responsible to its librarian for the books. The librarians soon began to fail to return all of the books. Some of them slipped out, or were appropriated, the librarians gradually becoming more and more remiss, till finally both they and the books disappear from the records — but not while those glorious old men who gave them lived — and I doubt if one hundred volumes can now be found in all the district libraries in the state. In one instance, when the Society had been in decline for several years, a few members assembled at an annual meeting, strangled it, and administered on the spot, by casting lots. Another expired several years since, leaving as its assets, one book, which the conscientious surviving librarian sacredly holds, waiting for the last trump to sound. A catalogue was ordered to be published, twice at intervals of several years. I have never seen it, but have examined a list of the books as they were purchased. Many of them are valuable of themselves, and all of them on account of their associations. Ought not some measures be taken to recover these books, before every vestige disappears, and place them in the care of our librarian, or in some other safe place?

We clearly have no moral right to scatter to the four winds the library given us by Dr. Bartlett. And ought not poor Peter's books to be reclaimed, and kept as a memento of the man who used to go six miles and attend an obstetric case for fifty cents!

But the loss of our library is not so great a misfortune as the loss of every scrap of the transactions (so far as I know) of the first sixty-four years — the years of the experience of such men as Smith, Perkins, Mussey, Twitchell, &c. The papers read and the discussions held would be to us invaluable, and it is a shame that they are lost. The fault is partly our own; it lies at the door of the present generation.

Our transactions only reach back fifteen years, and from that date our interest in the welfare of the Society has steadily increased. But even now we have not the enthusiasm of its fathers. The medical talent of the state is not here represented as it should be. Appointments are not always met. A failure to do this in our early history subjected the delinquent to a fine of five dollars. A glance at the history of this Society shows a hardy, sturdy growth, during the active lives of its founders, followed by a gradual decline, till for several years but little is known save its political history. Some of its annual meetings have scarcely a literary record. Now, gentlemen, what can we do to give life and vigor to this association? to raise the standard of the profession in our midst? In order to do this effectually and permanently, we must look to the coming generation; must see to it that the young men entering our profession are better educated, better qualified than we were. Our present system of education in the early history of the country, when there were comparatively few educated men, was perhaps the best for the times, but we have outgrown it. A thorough knowledge cannot be acquired, mainly, by the attendance upon one, two, or more courses of lectures. And yet this with reading, or rather staying in the office of some practitioner who cares nothing about students, never hears a recitation, whose library is perhaps destitute of modern books and the periodicals of the day, is all the teaching some of us have. Lectures, where the students, freshmen and seniors, are gathered into the same room, listen to the same lecture, which, if profitable to the advanced, is not to the beginner, where no initial examination is required but of the pocket, the fool may enter with the wise at the same door, and sometimes pass out at the same door. Suppose that our colleges should admit students without an examination; suppose still farther that there should be no grading, but that all should

form one class, and listen to the same lectures year after year, that there should be no recitation but simply a final examination — what would such a course amount to? Now this is precisely what we do. A young man with scarcely a common school education, with no regularly formed habit of study, willing to gain a livelihood without work, consults his family physician in regard to studying medicine, enters his office, reads what and when he pleases. His physician, not wishing to take students, never hears a recitation, takes no interest whatever in his studies, permits him to sit in his office knowing that he is not enjoying the advantages he ought, but still gives him a certificate of his time. Now, unless a man is well posted, has a good library containing modern standard works, takes the medical journals and reads them, loves to teach and manifests it by daily quizzes, he has no moral right to receive students into his office.

Ordinarily, a beginner is no judge of a man's professional attainments. Taught from infancy to place implicit confidence in his doctor (which of course is right), to believe him to be a great man, which may or may not be true, and whatever he learns from him, be it true or false, will stick, and if false will cripple him for life. Time was when men fitted for colleges privately, under the tuition of some graduate; but such is not the rule now. And even then an examination was required previous to admission, so that if the pupil was not qualified, he met with a check at the onset. Whereas, in our profession, the pupil is permitted to spend his time and money, — to be plucked after he has been fleeced, if a man can be found with the courage to do it. I repeat, a physician who is not well posted, and who is not alive to the interests of the profession, ought not to receive students, and even if he is qualified to teach, with so many private schools in our cities, with hospital advantages, it is then questionable.

Our leading men have long felt the need of some more

thorough course, have been conscious that the present system is very imperfect, and several remedies have been proposed. Extending the term of lectures is put forth as one redress. But this will not accomplish the end. Our system is imperfect, and one cannot be thoroughly taught even if the course be continued three years.

It is acquiring knowledge at arm's length. A student wants to get close to his teacher, wants to question him, to discuss with him. He will learn more by asking, than by answering questions.

A man with the live consciousness that he is a professor, who puts on his best clothes and delivers a stilted lecture written with much care, all the matter polished out of it, written so prettily that he never tires of reading it, but delivers it year after year, teaches you nothing. But take the same man in the dissecting room, or laboratory, in working gear; he knows something, and can teach you something. It matters little in what garb truth is presented, if it be impressive. For instance, it used to be thought hazardous to ligate a vein. I once heard a professor instruct his class thus, on that subject: "Gentlemen, I will tell you how to tie a vein safely—tie it tighter than thunder." Homely but forcible. That professor was noted for his common sense, the most uncommon of all sense. Common sense is a gift. God makes such men, but our colleges sometimes make literary men out of different material. Let me repeat, one can never thoroughly learn his profession by an attendance upon courses of lectures. He may pass a good examination by his professors. There are few men who have not some hobbies, crotchets, weak points, and if the candidate be sharp, he will remember them, and by keeping them constantly before the professor he will pass a splendid examination. But what will he know of the rest of the medical world? I knew a professor of thirty years' experience who was perfectly satisfied with two answers to all questions re-

lating to the treatment of all diseases. "Mr. Smith, what will you do for this disease?" Mr. Smith who has been asleep during the entire lecture, and has not the slightest idea of what the disease in question is, answers, "Depurate the blood." "Right, sir; what with?" "Turpentine and oil." "That is right, sir." To pass a good examination before that venerable professor, one had only to remember these phrases,—depurate the blood—turpentine and oil. And that man lectured a lifetime, without ever for a moment dreaming that these answers were meaningless. He might as well have said, "Mr. Smith, what will you do for this man?" Answer, "Cure him." And yet he was a learned man, in one sense. He knew every medical hypothesis from Adam down, and spent weeks of the term in showing them up, and then loaded down the class with his own foolish theories. Beware of a hypothetist. One's head will hold about so much, and if filled with theories there will be no room for facts. A student, if he wishes to grow, must lay a broad foundation upon facts gathered from the whole medical world. He must not be content with theories, if he would be a strong man.

Another remedy has been suggested to protect ourselves and the public from the advent of so many half educated doctors; namely, raising the tuition to a uniform rate, that of the country schools as high as the city. That would favor the city, and kill the country schools, but the latter are not quite ready to commit suicide. Beside the principle is wrong; it would favor the rich and oppress the poor. And some of our best men are gathered from the ranks of the poor, and always will be. They know the worth of knowledge; it costs them something, they have sacrificed even the comforts of life for it, and are bound to make some use of it. The principle is wrong, *radically* so. The larger the fees, the greater inducement have the professors to fill up their classes with any *thing* that has money.

It is a bid for shoddy, not brains. Tuition *should* be free, and the professors liberally paid by government, as in France and some other countries. Let there be no pecuniary obstacles in the way of admission to our ranks, but let the path be so hedged up by rugged science, the entrance so strait that none but those eminently fit can gain admission.

We shall fail to accomplish the object most desired till our system of education be changed. The science of medicine embraces anatomy, physiology, pathological anatomy, pathology, &c.; all, so far as the acquirement of the knowledge of each branch is concerned, distinct, and should be taught separately. A man may be a good anatomist and know nothing of the other departments. Now, in commencing the study of medicine, the first in order (I don't say in importance) is anatomy, — there can be no question of this.

We must know the body, its structure in health, before we attempt to learn its diseases. How can a knowledge of this subject be acquired? Certainly not by a course of lectures, rushed through in six weeks, — the pupil getting a telescopic view of some parts of the subject, in the mean time obliged to listen to half a dozen lectures a day upon as many different subjects. Neither can he acquire it in the dissecting room while attending a course of lectures. The mind is distracted, confused, over-burdened, and what little knowledge one gets will be indefinite, and will slip away.

In order to learn anatomy thoroughly, one need not know that he has aught else to learn; he must go into a dissecting room — the more private the better — with an abundance of material, a live instructor, all enthusiasm, must take off his coat and go to work, — devoting himself entirely to that branch till he masters it. It will not take many months' close and undivided attention, to gain a thorough knowledge of descriptive and surgical anatomy.

It is an exact science. Microscopic anatomy is comparatively in its infancy, but its revelations are truly wonderful, and no one who has caught a glimpse of its developments will stop short of a thorough knowledge of general anatomy, which can only be acquired in a private course. Six months' hard study over the cadaver, scalpel and microscope in hand, will give one a knowledge of descriptive and general anatomy that will be life-long, or rather it will lay the foundation upon which he can rear a superstructure at leisure. If a student has not the determination, the perseverance, to know this branch thoroughly, if he turns up his nose at the sight of an ancient subject, touches it with the tips of his fingers, shrinks from it, — let him go home to his mother. He can never make a post-mortem without a bottle of cologne to his nose. One must overcome all this fastidiousness, must relish a dinner in a dissecting room, or he will never make an anatomist. The next subject in order is physiology, — after a knowledge of the body comes a knowledge of its functions; after knowing the machine we must know its uses. And here, gentlemen, we have a field not fully explored. The microscope and animal chemistry are throwing upon it such a flood of light as to amaze, but not bewilder us.

By such aids every nook and corner will soon be illuminated. Can we obtain a knowledge of this from books, strained through a professor? Certainly not. It must be by demonstrations, by vivisections, by the microscope and chemical apparatus, to private, working classes, by one who knows his subject through-and-through. Suppose the professor reads a history of the blood, tells you all about the globules, red and white, the fibrine, the serum, &c.; you have heard the lecture, can you remember it? Are you not obliged to consult the same author which he did before you can recite? But who has ever seen the red and white corpuscles under the microscope, whipped out the fibrine, coagu-

lated the albumen, and forgotten it? He can describe a corpuscle from his own observation as long as he lives, and knows it when he sees it, in place or out of place, in the capillaries or in the urine. And so in regard to digestion, assimilation and other functions, — all the senses must be brought to bear upon the subject; and knowledge that enters the brain by all its avenues, sight, hearing, taste, touch, &c., will make an impression that can never be effaced. It will stick.

One may read and forget that a paralysis of a vaso-motor nerve from traumatic or other causes will produce congestion and an increase of temperature of the parts under its influence. But who has ever witnessed the division of the sympathetic in the neck of the rabbit, and forgotten the red ear? When I studied my profession, physiology was taught from books by lectures, and I am now obliged to refer to the same to refresh my memory. Not so with anatomy, — I got this in the dissecting room by hard work.

The next subject in order is pathological anatomy, and it must be learned in the dead-house; and my friend who couldn't relish a dinner in the dissecting room has no business here. Perfumery won't save him.

Until within a few years opportunities for acquiring a thorough knowledge of this subject in our own country have not been good; and ambitious young men who had the means carpet-bagged it across the Atlantic to sit at the feet of Rokitansky, or some other celebrity. I always envied them. But now, in our large cities, we have young men and old, pupils of that wonderful man, foremost in our profession, Virchow, and Rokitansky and others, teaching this important branch thoroughly upon the cadaver with the aid of the microscope. And under the auspices of these men, especially some young men whom I might name, may we not reasonably hope and expect to see the standard of medical education elevated in our own country,

so as to approach, if not rival, our trans-Atlantic brethren? Pathology bears the same relation to pathological anatomy, as physiology does to anatomy; it is the function of a diseased structure. A knowledge of this is naturally and necessarily acquired in the sick-room, in the wards of a hospital if possible, with clinical lectures and recitations. More than twenty years ago, it was my good fortune to spend six months in Paris, and I was impressed with the superior advantages of their method of teaching this branch.

A small class accompanied the professor through the ward, witnessed the daily examinations and prescriptions, then retired to a small room and listened to a clinical lecture for twenty minutes upon some disease of which there happened to be several cases in the ward at the time. The lecture was illustrated by constant reference to the cases which the student had observed for several days. The method was truly clinical.

At the last meeting of the American Medical Association, the subject of medical education was one of the principal topics. The president, Dr. Baldwin, dwelt upon it and said, "Let the chairs be open to all aspirants, and the appointment or election of professors be so guarded as to secure the very highest talent, the most profound learning, with the most fully demonstrated capacity for teaching. Make the salaries of the professors large, and not depend upon the number of students; and let the Federal government assume a proper share of the expenses incurred." He also suggested a board of examiners, independent of the schools.

Dr. Gaillard of Kentucky introduced several whereäses and resolutions, among which are the following:

"Whereäs, the medical teachers of America have, after a trial of twenty-two years, failed to meet satisfactorily and efficiently the requirements of the great body of the profession in regard to medical education; and

"Whereäs, the condition of the profession is yearly becoming more deplorable on account of the antagonistic and objectionable policy of medical schools in making the amount of fees charged, rather than successful teaching, the basis of competition."

And Dr. Pollock, of Pennsylvania, introduced a resolution which I deem so important that I will quote it:

"*Resolved*, That all county medical societies shall be required to elect a committee annually, whose duty it shall be to examine all applicants for admission as students under the tuition of its members, and that no member of any county medical society shall receive any such applicant, until such applicant shall present a certificate from said committee testifying that he has a good English education, and a sufficient knowledge of Greek and Latin to enable him to pursue his studies with advantage."

Wouldn't it be advisable for the same committee to examine that member of the society who proposes to receive this candidate into his office, as to his qualifications to teach? Is he qualified? A word of *tremendous import* in this connection. It is not enough that he be learned. Does he know how to teach? Will he simply *teach* the candidate, or teach him how to learn? Solomon says "The words of the wise are as goads." Will he goad him on, or simply stuff him?

The editor of "The Medical Record" speaking of this all-important question, says: "Although the fact is patent to every interested party, that very little if any progress has been made toward the desired end, there are still to be found members who are determined not to grow weary in the struggle for the interests of medical schools. The events of the past ten years have forced the conclusion upon the profession, that the blame of many of the evils now existing in our college system is not due so much to the student as to the teachers themselves. The disgraceful

rivalry of pecuniary interest seems to forbid the taking of any initiative as to a change; and while each school is loud in its denunciation as to the mote in the neighbor's eye, their own beam still remains in all its hideous deformity, generously overlooked."

Have not incorporated medical schools hitherto occupied too prominent a position, or have they not betrayed their trust? Some organization must exist to grant diplomas, and one course of lectures, previous to the final examination, upon subjects that don't admit of demonstration — a general review, like a judge's charge to jury, would be profitable, but the attempt to teach all branches in this way always has failed, and always will. The idea of one's attempting to teach anatomy, to demonstrate the cochlea, the lamina spiralis, scala vestibuli and scala tympani, to Snooks who sits in the farther corner of a large amphitheater, busily engaged making spit-balls for target practice upon the professor's spectacles, is perfectly ludicrous.

Snooks is a good fellow, and a good scholar, only interest him. Give him the temporal bone, a saw, a chisel and knife, and he will uncover the ear, and never forget its marvelous mechanism. All we want is some more effective system, which will bar out those not half qualified, and if the adoption of such a system necessitates the organization of more schools or the closing of some of our medical colleges, we can't help it. Colleges must exist, if at all, for the benefit of the profession, and not the profession for the colleges. For the prevailing standard among *students* of medicine, we must all share the responsibility. But for their admission to our ranks without proper qualifications, our colleges alone are at fault. They guard the entrance, and I hope to see the time when fools can't enter, unless it be scientific fools, and such are found in all professions. We know that Paris has a Nelaton, Berlin a Virchow, London a Sir Henry Thompson, Vienna a Rokitansky, but we

know little of their organized schools. We read in the biographical notices of eminent men, such as Mott, Stevens, and others, that they studied with Abernethy, with Hunter, with Cooper, but we know nothing of the schools. But there are subjects to be taught by public lectures, medical ethics, medical deportment, hygiene, everything relating to the comfort of the patient, the little delicacies of diet, — more important than drugs. Abernethy was not ashamed to show the wiggies how to make a poultice. This is the kind of knowledge our students need, and in which they are sometimes very deficient. One can see at a glance the subjects proper to be taught in the lecture room. Medical jurisprudence, for instance, a very important branch, and one which we had rather not see *demonstrated.* It must be taught publicly and more thoroughly than it usually is. A few lectures on toxicology will not suffice. A general practitioner is not expected to be an expert upon the chemical analysis and tests of poisons, only of their effects upon the system. What students most need are lectures upon the manner of giving testimony before our courts of law. If there is any place in the wide world where a medical man is sure to make a fool of himself, it is on the witness stand. One of our most prominent lawyers told me a few years ago that he had but little confidence in medical testimony; that he had met with but few men who would not swear just as he wanted them to. That may be a strong statement, but there is some truth in it. How often have we seen intelligent men, upon the stand in the same case, swear point blank against each other. They were neither fools nor knaves, as Armstrong says. They stated with a superficial knowledge of the case, without knowing its bearings, and were tripped up by some sharp lawyer, were confused, and blundered along the best they could. Either that, or were dishonest from the start. And is it possible that a medical man can be found who will take the

stand, with the solemnity of an oath upon his lips, and swear down, perhaps, a brother doctor in a case of malpractice, against his own honest convictions? If so it is a depth of moral degradation that cannot be found elsewhere. It does not absolutely require learning for one to appear well on the stand. An honest, clear-headed man always appears well; if he be learned, so much the better. But learning without a clear head, without integrity, will fail one at such a time. It is no place for a pompous man to display his learning with high sounding technicalities, but a capital place for the display of his common sense and honesty. I don't purpose to give a lecture upon this subject, but if a witness, an expert, takes the stand and tells the jury honestly just what he knows, and what he *knows* he knows, in plain English, no lawyer in christendom can trouble him; and an expert never should take the stand unless he knows the case thoroughly, then he can't be driven from his position. The attempt will be made to lead him off on some foreign trip, but he must stay at home. Suppose the case to be one of poisoning, and he knows something of chemistry, the council will lead him off till he gets beyond his depth, and unless he knows that subject thoroughly he must not venture an inch. If he be a good anatomist, the council will soon find it out, and will be very careful about venturing too far with him. A lawyer can't stuff himself within a few days so as to trouble a man who has grown up with anatomy. Although the lawyer has the advantage of the witness, asks the questions, if he be intelligent, clear-headed and honest, and answers in plain English, he will not be disturbed. But if he can't talk English, if for the old-fashioned word, wound, he says solution of continuity (as I once heard a witness), if for enlarged he says hypertrophy, or if he use any technical term which has an equivalent in plain English, the lawyers will pull his *long* ears.

I think, gentlemen, that you will agree with me that this subject is not developed, is not brought out as it should be. The evil effects of our system are two-fold; first, as shown in our profession (exceptional of course) by humbugs, and second, as shown in the community by a willingness to be humbugged. Let us examine this for a moment.

A regularly enters the profession with a superficial knowledge of it, is a sharp man, sees at a glance the humbug element in the community, feels his own deficiency, and knows that to be an intelligent physician he must work. He likes money, is not over-scrupulous as to the manner of acquiring it. He commences to be a little irregular on the sly; thinks well of homœopathy when in that atmosphere, sees something commendable in eclecticism, Thompsonianism, spiritualism,—gets their consultations,—is all things to all men, and to all women.

He passes in the community for a very learned man. He understands and practices homœopathy and allopathy, and is very accommodating; lets his patients decide which system they will have. He is a sort of a double-barreled doctor — carries homœopathic pills in one barrel for small game, and allopathic in the other for large. He is very popular with a certain class, and not (I am sorry to say) a small one, on account of a practice that is illegitimate from first to last — he carries the instruments for criminal abortion in his pocket. But notwithstanding all this, there are men in our profession (we must confess it) of good standing, who will go through the farce of a consultation with him, and quiet their consciences by pocketing the filthy lucre.

If not in his immediate vicinity, the distance of a few miles will furnish an excuse for pretended ignorance of his real character. Now what ought we to do with A? Let him severely alone, and not by open opposition create a sympathy for *him* to live upon. Let those employ him who will; we must respectfully decline to hold professional intercourse with such a man. Self-respect forbids it.

B easily gains admission, not much better qualified, but an honest, sympathetic man. He is brought in contact with disease, is conscious of his deficiency if he knows enough, feels all the aches and pains of his patients, loves the children, hugs and kisses them, calls them sis and bub, is very attentive, makes long calls, feeds his patients, bathes and rubs them, makes the bed, — is very popular, especially among the women. Picks up and dispenses all popular remedies, and all popular whims, is taught by the people instead of teaching them, is said to have good *luck* (luck is the word) in fevers, or in some specified disease. He has no modern books, no periodicals, no library excepting the few text-books he had when he entered the profession, and those are locked up in his book-case and the key lost years ago. He does a large business, intends to be professionally honorable, and, finally, he is a first-rate nurse, — that is all.

"The man who in this age practices medicine anywhere within the pale of civilization, without buying books or reading some medical journal, is not only a disgrace to our profession and to the nineteenth century, but to human nature itself." *

C is admitted, is better qualified, self-reliant, a little inclined "to blow his own horn," which is all right, — if he don't who will? He is cool, calculating, ingenious, ambitious for fame. He looks the field over and finds that a surgeon is more famous than a physician; and the man who takes off a limb more famous than the man who saves it. He will be a surgeon. Now, if he be governed by one rule, he will be one of the most valuable members of the community. If he does not let his ambition to operate influence his judgment, if he has the welfare of the patient *only* in view, and keeps up with the times, he will be an

* Medical Record.

ornament to the profession. But if he be ambitious to operate, only ambitious to cut, he is a dangerous man,—let him go to Cincinnati and operate upon the hogs. But the real nobleman is the thoroughly educated, thoroughly honest physician; the patient investigator of disease, one who never shrinks from responsibility, but meets disease manfully, never tires in his investigations,—the acquisition of science is both a duty and a pleasure. He has a well selected and well filled library, periodicals with the leaves cut. He entered the profession well qualified, and keeps in the first rank; is more ambitious for knowledge than for fame or riches; is honorable, courteous and a gentleman everywhere. These are the men worthy of imitation.

The father of medicine was a physician, so was Sydenham. The world has produced more Nelatons than Trousseaus; more Langenbecks than Virchows.

Finally, the willingness of the people to be humbugged. It is not strange that a person should once be caught, but it is strange that he should be deceived by all those itinerant doctors; cursing the last, while he swallows the present charlatan's nostrum. Whose fault is this? We are to be blamed. We have taught the people that Dame Nature never cures, that she is a mischievous old granny, and have made them believe it; while she stands with her book wide open, on whose page is plainly written, so plainly that a blind man may read if he will, "Only assist me in difficult passes, help me to guide the ship, don't attempt to quell the storm, learn to interpret my signs, and read my signals."

Some of our physicians firmly believe that drugs are the *sine qua non*; that without them "was nothing made that was made;" that Adam was made with a bottle of castor oil in his hand, and Eve with a bottle of soothing syrup; really believe that Dame Nature *is* an old fool, scarcely

worth consulting; just brush her one side, take the case out of her hands, and go to the ——.

Now, believing this, and seeing patients recover under homœopathy and all other pathies, is it strange that the people are so easily humbugged? It is perfectly logical — they can't help it.

When the scales fall from *our* eyes, when *we* learn the extent of our instrumentality and publicly confess it, when we are content to guide the ship, and do not attempt to quell the storm, then will the eyes of the people be opened, and they will dig deep the grave of quackery, and bury it forever out of sight.

EULOGY

ON

REUBEN DIMOND MUSSEY, M. D., LL. D.

BY A. B. CROSBY, A. M., M. D.

MUCH of all history trenches on the domain of biography, so that it has come to be the effort of many of our most brilliant thinkers in this century, to apply the great scientific doctrine of *Law* to the whole course of history, and to relegate to biography every partisan outburst of enthusiasm for the hero.

It is for the biographer to search through all the shadowy thoroughfares of the soul for each mainspring of thought and action, to make of one man the Atlas of a cause, or a period. To meet this discontent of history, as history had been written, Buckle and men of his stamp threw all the weight of genius and patient labor, not only to systematize all great causes, and the physical influences underlying them, but to sink into comparative insignificance the individual beside the *necessities* that called him forth. Yet is biography as old as history, and its place in literature must ever hold a mighty sway over the mind. With all the magnificent generalizations of Buckle, how touching the pathos of his confessed defeat. "Little did I know," he exclaimed, "how the horizon enlarges as well as recedes, and how vainly we grasp at the fleeting forms which melt away and elude us in the distance!"

No such weary stretch eludes the grasp of the biographer, while a thousand cooling rills of incident and anecdote start up by the wayside of his labor, and give variety and tone to his work. Plutarch says, "It does not follow because an action is great, that it therefore manifests the greatness and virtue of him who did it; but, on the contrary, sometimes a word or a casual jest portrays a man more to our knowledge of him, than a battle fought wherein ten thousand men were slain, or sacking of cities, or a course of victories."

There are idiosyncrasies of character with their tangled irregularities and physical laws, which may so modify or intensify them. Above all there are those great psychological truths that meet us on the threshold of the soul. All these contribute to make a critical, analytical study of character fascinating to the last degree. Nor is it the least of its charms the *mind* we bring to our task of commemorating a friend, or writing our summary of one whose character has become ideal in its beauty.

Perhaps the last glow has not faded from a remembered meeting, or years of genial intercourse has created a friendship for the man as well as the work of his life. Yet in the whole range of letters there is no department so sad as biography. Fascinating as it is, it deals only with the dead past, nor gives us any hold on the future, save only as we may translate the successes or failures of the dead, for our instruction and guidance beyond. The brevity of human life, the insufficiency of all ambition, the inevitable law of mortality, are principal facts impressed upon us by a contemplation of the longest and most successful life. Nevertheless affection weeps by the bier, and respect crowns even the tomb with laurel. To commemorate the virtues of the dead and perpetuate a good name and achievement is at once the grateful office of piety and affection. Yielding to this kindly instinct of our common nature, we are

here to-day to express our veneration and respect for one whose whole life was consistently given to God and humanity.

Reuben Dimond Mussey was born in the town of Pelham, Rockingham county, N. H., June 23, 1780. His father, Dr. John Mussey, was a respectable physician and an excellent man, but was not able to do much to advance his son. When Reuben was nine years old, the family removed to Amherst, up to which time he had the educational advantages of the district school. His father taught him the rudiments of Latin, and at the age of fifteen he attended the academy at Amherst and was fitted for college.

Determined to have an education, although too poor to immediately attain it, he labored on a farm in summer and taught a school during the winter. This he continued to do until, at the age of twenty-one, he entered the Junior class in Dartmouth College, in the year 1801. He continued to teach for his support while in college, and acquitted himself creditably as a scholar, being reckoned in the first third of his class.

He was graduated in August, 1803, and immediately became a pupil of Dr. Nathan Smith, the founder of the Dartmouth Medical College, a name ever to be mentioned in New Hampshire with veneration and respect. The following summer young Mussey taught an academy at Peterboro', and studied with Dr. Howe of Jaffrey.

He completed his studies with Dr. Smith, sustained a public examination, and read and defended a thesis on Dysentery. The degree of Bachelor of Medicine was conferred upon him in August, 1805, and in the September following he commenced practice in Ipswich, now Essex, Mass. Here he practiced successfully for three years, when he settled his business and went to Philadelphia, where he engaged in medical study for a period of nine months. While at Chebacco, now Ipswich, Mass., he married a Miss Sewall, who

survived the marriage only three years. He subsequently married Miss Hetty Osgood, a daughter of Dr. Osgood of Salem, who served as a surgeon in the army during the revolution. Under the instruction of Benjamin Smith Barton, he attended a full course of lectures in the University of Pennsylvania, and was graduated as a Doctor in Medicine in the year 1809. The Professors at that time were Rush, Wistar, Physic, Dorsey, Barton and Woodhouse.

Drs. Chapman and James gave the course on Obstetrics. Dr. Mussey here distinguished himself by a series of experiments tending to rebut some of the generally received physiological doctrines of the time.

On his return from Philadelphia he settled in Salem, Mass., and soon afterward formed a partnership with Dr. Daniel Oliver, subsequently a professor in the Dartmouth Medical College, a gentleman of rare grace and accomplishments.

These gentlemen gave popular courses of lectures on Chemistry, in Salem, with great acceptance. Dr. Mussey remained in this field between five and six years, and attained a large practice during the last three years, averaging, it is said, a fraction over three obstetric cases a week. He had already distinguished himself as a surgeon, aud in the autumn of 1814 he was called to the chair of Theory and Practice at Dartmouth. He gave in addition a course on Chemistry, most acceptably to the students, and engaged in an extended and laborious practice.

In the troubles that sprang up between the University and the College, owing to the effort of the state legislature to wrest from the college its charter, Dr. Mussey took the side of the college.

Through the splendid efforts of Mr. Webster, Dartmouth's noblest son, the college triumphed, and in the year 1812, Dr. Mussey was appointed Professor of Anatomy and Surgery. Until the close of the session of 1838, he

held this chair, and also lectured on materia medica and obstetrics, to meet occasional exigencies in the college.

In the summer of 1818 he lectured on chemistry in the college at Middlebury, Vt. In December, 1829, Dr. Mussey left Hanover for Paris, where he remained several months. He passed several weeks in London, visited the great hospitals and museums, both there and in the provinces, and became acquainted with many distinguished men. After an absence of ten months he returned in season to give his course in 1830, by lecturing two and three times a day.

Not far from this time he was invited to fill the chair of Anatomy and Surgery at Bowdoin College, which he did for four years in succession. In 1836 and 1837, Dr. Mussey went to Fairfield, N. Y., and gave lectures on surgery at the Medical College in that place. During the year 1837 a professorship was tendered him in New York city, Cincinnati and Nashville, Tenn. He decided to accept the call to Cincinnati, and for fourteen years was the leading man in the Ohio Medical College. He then founded the Miami Medical College, labored assiduously for its good six years, and then retired from active professional life, though still retaining all his ardor and enthusiasm for his chosen profession. At the close of his professorial duties in 1858, Dr. Mussey removed to Boston, where he spent the remainder of his life, and died from the infirmities of age June 21, 1866.

He had ever been from his youth a consistent, devout Christian, and his record is without spot or blemish. Dr. Mussey's natural temperament was somewhat anxious and despondent, but fortunately his wife whom he married in 1813, Hetty Osgood of Salem, was a woman of cheerful faith and great moral worth, so that she compensated most lovingly this misfortune of his temperament. None knew so well as he how much he was indebted to her in this re-

gard, and that was the darkest day in his life when, in the month preceding his own death, this faithful companion went without him into the Dark Valley.

After Mrs. Mussey's death, her husband received a letter of condolence from a blind missionary in Cincinnati, which "strongly moved, yet deeply comforted him," and which so admirably expressed this difference and harmony between them, that I am permitted to make an extract from it. "I think," he writes, "she had rather more confidence than yourself, saw perhaps clearer the way of salvation by Christ, and was blest with a more cheerful hope. Was it not kind in the Lord Jesus to let her lead the way to the abode of the blessed? She may be the first you will recognize on the other side of the river, and her gentle hand and voice may guide you to the presence of the Holy One, and make your assurance of acceptance double. Oh! that will be a blessed meeting, and you will patiently and cheerfully wait for it!"

He had not very long to wait, for in a little more than a month after the death of Mrs. Mussey he laid down to his final rest composed and peaceful.

Such are the bare outlines of his life, but to those who knew him, his former pupils, his medical associates, his Christian friends, how meagre and barren they seem. The greater and better part is still unsaid. To say something of the cardinal points in the character of this excellent man befits the place and the occasion. The time will not admit of an exhaustive resumé of his life and character; that were the work of a biographer rather than a eulogist. But there are some of his characteristics that affection delights to dwell upon, and from a contemplation of which, we as medical men cannot fail to profit.

It was as a surgeon that Dr. Mussey came to be most extensively known, and as such let us first consider him. Both as an operative and scientific surgeon he attained a national reputation. There are two classes of surgeons—

the one sacrifices everything to the brilliancy of an operation, and when the knife has gracefully and rapidly done its work, regards the most important point of all — the after treatment — with indifference, not to say disgust. The other does his operation carefully, and with the full conviction that it is "soon enough done, when it is well enough done," and then conscientiously strives to overrule each and every circumstance, however slight, so that all shall inure to a successful result.

Dr. Mussey belonged to this latter class. The brilliant passes and manner of the French surgeons, he regarded with contempt. He cared not to make a figure, but to benefit his patient; not to gain *eclat*, but to save human life. He believed much in skilled surgery, something in nature, but most of all in God. So it transpired that on the eve of a great operation, he frequently knelt at the bedside, and sought skill and strength and success from the great source of all vitality. We are told that the moral effect upon the patient, and the peaceful composure that followed, were not the least of the agencies that so often rendered his surgery successful.

But he was not content blindly to accept the dictum of those who had gone before. Every principle was carefully scrutinized, and whatever he believed to be false he did not hesitate to attack, and so his name came to be associated with surgical progress. As illustrative of this point, some instances may be adduced.

In the year 1830, and before that period, Sir Astley Cooper had taught the doctrine of non-union in cases of intra-capsular fracture, and it was generally accepted as an established principle at that time. Dr. Mussey carried a specimen to England which he believed showed the possibility of such union taking place. Sir Astley on first seeing it said, "This was never broken," but on seeing a section of the same specimen remarked, "This does look a

little more like it to be sure, but I do not think the fracture was entirely within the capsular ligament." Mr. John Thompson of Edinburgh, on seeing it, declared "upon his troth and honor" that it had never been broken. This eminent surgeon, like the disputatious Massachusetts Scotchman, "always positive and sometimes right," was in this instance mistaken, as the principle advocated by Dr. Mussey is now established.

As an operative surgeon, Dr. Mussey's excellence was largely due to his skill as a mechanic. As some men are born poets, so others come into the world with that mechanical aptitude without which a fractured bone is never properly adjusted, and the knife is never neatly used. There is still a clock, in possession of his descendants, which he made with his own hands, and when he went to college he wore a pair of boots manufactured by the same skillful and and industrious fingers.

As a surgeon he was bold and fearless, ever willing to assume any legitimate responsibility, even though it took him into the undiscovered country of experiment. He did not do this rashly, but only when the stake was worthy of the risk. There is still living in Hanover a Mr. Jason Pettee, who is a living monument of Dr. Mussey's pluck and skill. This man had a large, ulcerated and bleeding nævus on the vertex of his head, which threatened a speedy death. There seemed no way to relieve the patient except by tying both carotids, which was regarded as an operation inevitably fatal. The danger was imminent, and as Dr. Mussey could see no way to untie the knot, he determined to cut it. He tied one carotid, and in twelve days tied the other; following both operations in a few weeks with a removal of the tumor. The recovery was perfect, and the case was, we believe, the first recorded instance where both carotids were successfully tied. This operation gave him great *eclat* both at home and abroad.

It is not my purpose to attempt an account of the surgery done by this eminent man, only to touch on some of its salient points. Thus he successfully removed an ovarian tumor at a time when the operation had been only done a few times in the world. He removed a boy's tongue which measured eight inches in circumference, and projected five inches beyond the jaws, and the patient recovered.

He removed the scapula and a large part of the clavicle at one operation, from a patient on whom he had amputated previously at the shoulder joint. Dr. Mussey supposed that this was the first operation of the kind in the history of surgery, but in this he was mistaken. It is certainly creditable to the surgery of New Hampshire that the first three operations of this kind on record were done by New Hampshire men. The first of these was done by my father Professor D. Crosby, and the other two by the late Dr. Twitchell of Keene and Dr. Mussey.

He several times removed the upper, and portions of the lower, jaw. Dr. Mussey kept no extended records of his operations, but I subjoin a few statements alike interesting to us and creditable to him.

He performed the operation of lithotomy forty-nine times, and all the patients recovered but four. He operated for strangulated hernia forty times, and with a fatal result in only eight cases. He practiced subcutaneous deligation in forty five cases of varicocele, and all were successful. Dr. Mussey operated four times for perineal fistula, twice for impermeable stricture of the urethra, and did a large number of plastic operations with the best results. He also successfully treated a recto-vaginal fistula.

These are only a fraction of the innumerable operations which he did, yet they show results such as the greatest surgeons in the world would be proud to declare. But it was not alone as a surgeon that Dr. Mussey attained excellence. It was as an accurate observer, that he early made

himself known to the medical world. The habit of his mind was positive; he respected authority, and to the latest period of his life was assiduous in acquiring professional knowledge from books no less than from observation. He delighted to fortify himself in any given position by citing authorities, and always showed that he had informed himself exhaustively in the bibliography of the subject. Yet it was his habit to subject every medical statement to the most rigid tests.

While pursuing his studies in Philadelphia, he joined issue with Dr. Rush on some of the physiological doctrines which were generally received at that time. This distinguished man had taught the doctrine of non-absorption by the skin. This was supposed to have been proved by an experiment in which a young man, confined in a small room, breathed through a tube running through the wall into the open air, the surface of the skin being rubbed at the same time with turpentine, asparagus, &c. As no odor of these substances was perceptible in the urine, it was inferred that no absorption had taken place through the skin, and that it was impossible. Dr. Mussey, believing this doctrine to be fallacious, immersed himself in a strong solution of madder for three hours. He had the satisfaction of getting unmistakable evidence of the presence of madder in the urine for two days, the addition of an alkali always rendering this secretion red. He repeated this experiment with the same result, and made it the theme of a thesis on his graduation. Some of the Faculty who differed with Dr. Rush upon the subject were much pleased with these experiments, and predicted for our friend a distinguished career. After his graduation he carried his observations still farther. He immersed himself in a rhubarb bath, and on adding an alkali to the urine got a reddish brown color as the result.

Another of his experiments evidently endangered his

life. He remained three hours in an infusion of nutgalls, and immediately afterwards immersed himself for the same length of time in a solution of sulphate of iron, but he could get no signs of ink in the urine. Being determined to ascertain the effect produced upon his blood, he opened a vein in his hand, but when about an ounce and a half of blood had escaped he fainted from the effect of his long immersion, and fell unconscious to the floor. He did not consider that anything was definitely settled by this experiment, but it was a fortnight before he regained his usual health.

The opponents of Dr. Mussey repeated his experiments, but did what they claimed he ought to have done, carefully closed all the outlets of the body. The result however sustained our friend's theory. His antagonists repeated these experiments, and finally announced that only a few patches such as the inside of the thighs, legs and arms could absorb. Dr. Rush himself yielded to the extent of admitting that madder and rhubarb had a very "penetrating quality," but could be absorbed only at certain points. The celebrated Dr. Chapman advocated essentially the same views. Dr. Mussey triumphantly vindicated this theory by inducing his friend Dr. Sewall to immerse first a hand then a foot, for eight or ten hours, in a solution of madder, and the urine showed its presence without a doubt. No extended account of these experiments was ever published, but they excited much attention and discussion at the time, and marked Dr. Mussey as an observing man and a good observer.

I have already remarked that Dr. Mussey was eminently positive in all his characteristics, and this was the result not less of his training, than of the Puritan blood that flowed in his veins. He did not decide what was good for himself, until he had fortified his position by scientific deduction and experience, but then he was positive that what

was good for him was good for others. As he never compromised the truth, so he never yielded to human weakness. The aphorism of Hippocrates, that "The second best remedy is better than the best, if the patient likes it best," could never have met his approval. The best with him was ever the best, and once meant always. Such men are always strong because they act from conviction, just as the well elaborated one book or one idea is a force in the world. The only danger of such a method is, that it may become Procrustean, the tall being in danger of amputation, and the short of extension.

As a young man, Dr. Mussey suffered much from dyspepsia, and headache as the result. Experimenting with his diet, he gradually gave up wine, and subsequently coffee and tea. The statements of Cuvier and Lawrence, that man is marked by nature as a vegetable eater, led him to give up animal food, and he persevered in a vegetable diet almost exclusively during the remainder of his life. He tells us that he did this because his nerves were excitable, and his hand was so unsteady in surgical operations. From 1832 to 1848, he took no animal food. During the latter year, while convalescing from a severe illness, at the urgent solicitation of his friends he took a mixed diet for a fortnight, but then abandoned meat and continued a vegetarian. In the same sickness he took brandy in doses of eight drops, which he claimed made a decided impression on him. In the latter part of his life he had what he apprehended might prove to be an epithelial cancer on his face, his father having died with that disease. After it had lasted a long time, he gave up fish, and the disease disappeared. Although not positive that this resulted from abstaining from fish, he was so impressed with the fact that he never eat it afterwards.

After he had learned by experience that this method of living agreed with him, he then, true to his instincts, set

about establishing the system on a scientific basis. He calls our attention to the fact that the orang-outang, chimpanzee and gorilla most nearly resemble man both in their organs of mastication and digestion, — that these animals are all vegetable eaters, and fall into ill health and frequently die on a mixed diet; that Adam and Eve before the fall were vegetarians, and that afterwards on a mixed diet the duration of human life constantly diminished; and finally, he adduces instances both in ancient and modern times, where vegetarians were celebrated not less for their muscular power than their mental vigor, and shows us that the extreme nervous acuteness of Caspar Hauser was only dimmed and obtused when he had learned to eat meat.

It followed of necessity that the example and teaching of Dr. Mussey on this subject led many persons in New England to adopt the system. Some of these unquestionably derived benefit from the change, but the feeble and anæmic had frequently occasion to regret it. A distinguished friend of his, after being assured that such a course would greatly improve his physical, mental and moral power, gave up animal food. It was not long, however, before a giddy head and weakened knees warned him of his mistake, and he recalled his butcher. Years afterward this gentleman was wont to say, that since that experiment he had "never attempted to transplant the rose of Sharon into his own garden." But the doctor himself believed that he had successfully accomplished the feat.

His entire confidence in the efficacy of vegetarianism sometimes resulted in disappointment, as in the following instance related to me by a venerable physician in the valley of the Connecticut. Having occasion to visit a patient in a distant town he was stopped in a village through which he passed, and requested to visit a little child which was lying at the point of death. After examining the case he

left the house, saying, "If you will feed that child on Graham gruel it will get well." The overjoyed mother went quickly to the task of preparing this famous "pabulum vitæ," and our friend continued his journey. On his return the next day, he stopped at the door to inquire for his little patient, when the bereaved mother assured him between her sobs that "the second dose of that stuff killed it." Potential as the doctor had come to regard Graham gruel, it is needless to add that he was not quite prepared to admit that it possessed such deadly qualities.

This is neither the time nor the place to discuss the pros and cons of this system. Whatever may be said against it, the fact remains that Dr. Mussey lived a consistent vegetarian during a long, laborious, and most useful life, and finally died in the same faith at the ripe old age of eighty-six.

There was no great moral question of his time with which he did not identify himself. And it was always well known that he would invariably be found on the side of law and order, using the terms in their largest and best sense. Wherever humanity was weak and little able to take care of itself, there could Dr. Mussey always be found, advising, laboring, and if need be legislating, for the greatest good to the greatest number. During his early professional life the custom of offering wine or brandy to every caller was universal. Not to have paid this civility to the physician would, in the popular judgment, have been rude to the last degree. A limited experience, however, satisfied him that the custom was a pernicious one. He was soon convinced that for a man to be physically, mentally and morally strong, he must be his own master. Habit, he was sure, was a taskmaster with an iron hand — never content until the servant was irrevocably a slave. Acting in this, as in everything, on his convictions, he first emancipated himself, then he labored assiduously to sever the chains that bound society in this regard.

First, last and midst, he waged unceasing war on alcohol and tobacco. Believing that these agents were eminently deleterious to the human system, he sought to prevent their use. He gave to these subjects with untiring energy his pen, his voice, and his example. He adduced no end of proof to substantiate his theory, ranging the whole circle, from the demonstrations of physiology to the historical fact that "Carthage fell less by the arms of Scipio than by the wines of Capua."

One who knew Dr. Mussey long and loved him well, writes of him: "Even in his college days he abandoned, after a brief trial, the practice, then so universal as to have required all a young man's courage in its breach, of keeping ardent spirit to counteract the bad effect of water upon himself and friends. Ever since he had a wonderful power of conforming his life to his convictions, however strenuous, and, as it seems now in looking back, a more liberal growth of convictions late in life, than is usual with men of his decided and energetic type. He was ready and eager, to the latest, to receive new truths, and, if they called for action, to act upon them, even to the alteration of fixed habits." When, towards the close of his life, he was advised to take whisky and milk, he revolted strongly — adding parenthetically, "which thing I hate." And again, when talking to a member of his family he said, "I have lived so many years without alcohol that I feel entitled to die without it." So he did die, ruling his own spirit, and his mind unimpaired to the last.

The life of Dr. Mussey is especially instructive to the young members of his chosen profession, as showing how much may be accomplished by persistent application. As a young man he did not, as I judge, give signs of unusual promise. He had only the natural talents that a thousand other men would have buried in the ground. But he supplemented whatever nature had failed to do for him by an

indomitable industry. His genius was the genius of hard work, and the harvest which he garnered was the natural product of a prudent and industrious husbandry. He had none of those meretricious elements of success that enable some men to make a figure for a time, with little or no genuine ability. Dr. Mussey's personal appearance was not impressive to a stranger. Low of stature and habitually attenuated, he at first sight gave no evidence of his power. He had high cheek-bones, a small gray eye, and a broad, prominent chin. When in repose, his face rather repelled a stranger; and when he spoke there was a certain brusqueness in his manner that always dampened the ardor of a child and put an adult on his dignity. That personal magnetism—a God-like gift which some men possess, and by which they genially infect the whole social atmosphere around them — he never had. He was built on the earnest, conscientious, cast-iron model of the Puritan. Yet, notwithstanding the lack of these extraneous elements of success, he never failed to impress himself on any community where he chanced to dwell, nor to occupy the elevated position which was his due. And these results were attained by unsullied virtue and untiring labor. The late Professor Charles B. Haddock, one of the most courtly and accomplished scholars of his time, in advising young men was wont to say, "Do *well* and wait." And this was the method of our friend. And such must be the course of every one who would win success. Seed-time and harvest will inevitably follow each other, but unless the seed be planted and the soil be industriously tilled no harvest will be reaped.

I can not close this imperfect tribute to the memory of Dr. Mussey without saying something of his character as a Christian. To omit this would be throwing out of account the most constant factor in the sum of his life. We are told that the great Morgagni, having completed a beautiful

dissection, threw his scalpel to the floor exclaiming, "Oh! if I only *loved* God as well as I know him." When the dissecting-knife of our friend had unfolded the wondrous beauties of human anatomy, he did not pause to despair, but recognizing these evidences of a magnificent design, he bowed in humble adoration at the throne of the Great Designer. And thus throughout a long life he maintained without reproach the character of a Christian, and "died fearing God." The venerable ex-President Lord—*præclarum et venerabile nomen*—has kindly consented to give us his estimate of the Christian character of Dr. Mussey, derived from an association and friendship of many years. This distinguished gentleman writes of him as follows:

"You have asked me to give you my impressions of the venerable Dr. Mussey as a religious man. I am at a disadvantage, in this respect, because my acquaintance with him was confined to the period of our common residence in Hanover. Of the beginning of his Christian life at Salem, in the Tabernacle Church, and of its late ending in this world at Boston, I know nothing. That, indeed, is of little consequence as to one's assurance of the reality or excellence of his Christian character, as gained from a prolonged intermediate acquaintance and friendship, though important to a general sketch, and indispensable in a portraiture. We want to know the first and the last in making an estimate of the whole. Bunyan's Pilgrim is more instructive to us, and has a greater charm, as we see him laboring through his early difficulties, his burden presently rolling off into the sepulchre; and, at last, as he enters the land of Beulah, and is borne hopefully through Jordan. But a biography you do not want.

"I knew Dr. Mussey only when he was in the midst of his professional career. He was then the active citizen, the scientific student, the learned and earnest lecturer, the indefatigable practitioner, the inquisitive traveller, the friend and correspondent of learned men, at home and abroad; and, of course, overwhelmed with the cares growing out of such extended and complicate relations. But he was never more true to himself or to society in his various natural pursuits than he was faithful to his Christian calling; never more useful or honorable in his secular, than his

religious, profession. I first knew him as a delegate to represent important Christian interests in the State; and I never knew him afterwards but as a consistent and diligent promoter of the same interests at large. I never saw reason to doubt that he was a regenerate man; that he must have begun his Christian life with a profound experience, nor that his end would be peace.

"A man is perhaps best known by his social sympathies. The Doctor's most valued religious associates represented, in their day, the best type then remaining of the Christian virtue of New England. The Doctors Worcester, Emerson, Dana, Porter, Putnam, and other excellent men of that class, clerical and laical, were his chosen friends. They shared his confidence, and enjoyed his characteristic hospitality. He was never wanting to any honorable men who had claims upon his courtesy, or his charity. But his fellowship was with those only who received truth as he had received it, in the family and the church from the Bible and the Catechism, then the only *pabulum* for the children of New England. Our modern fictitious and romantic Sunday-school literature was then unknown.

"It may have been a consequence not more of natural temperament than of early training, that our excellent friend was sometimes brusk in manner, and showed a perceptible tinge of the old Puritan severity; as if he had learned more at Sinai than the Cross, and conscientiousness had grown out of proportion to affection. But that first impression has been lost upon me, when, as often, I have seen him softened and dissolved, and the quivering lip, the moistened eye, and the involuntary gush of tenderness, convinced me of the warmth and largeness of his heart. His very faithfulness to the Decalogue, stern as it was upon occasions, resolved and effective as the scalpel in his hand, served to make him, in the natural reaction, more susceptible to the gentle influence of Calvary, and more constant to the new Commandment. I have admired how he could reprove and rebuke with all authority, and then go away and weep for his erring brethren like a child. Besides, he had heavenly music in his soul. A discord, or an untimely movement fretted him. But when, as sometimes in the congregation or the social circle, a glorious harmony went up, then the strain rose from his as of impassioned viol in enlivening concert, and his chastened spirit seemed to go with it into communion with the choir above. So he was mellowing and refining all along the years, and diffusing the influence of a true Christian charity around,—a devoted member and officer of the church, a

lover of good men, a constant observer of the Sabbath, an earnest defender and propagator of the faith, a gratuitous adviser and benefactor of the poor, a proverbial terror to evil-doers, but a praise and an encouragement to those who do well.

"Dr. Mussey was positive in his Christian as in his professional character. It was always known where he could be found. He never balked a good purpose, nor disappointed a reasonable hope. He was true to his own convictions, resolved in judgment, prompt and thorough in execution. He would eat and drink, or refrain, without asking counsel of his neighbors. He was indifferent to their criticisms, but always considerate of their objections, and never acted without reasons that at least deserved their study. These he gave with great frankness, and then left others to stand or fall to their own masters. He judged no man. He was scrupulous, but not exacting; just and confident without self-righteousness; devout without hypocrisy; grave without austerity; cheerful without frivolity; conscious of sin in all things, but truthful in the righteousness of his Redeemer, and accounting it the great end of life to please and honor God. I doubt not that he was, to the last, patient and resigned under the accumulated infirmities and sufferings of his ripe old age, cheerfully resigning his attenuated and worn-out frame to the dust, hopeful of a better resurrection.

"Our venerable friend was a good man, eminently worthy of the many honors which he received on earth, and doubtless now has a greater honor in heaven. We have that assurance from Him in whom he trusted:—'If any man serve me, him will my Father honor; and where I am, there also shall my servant be.'"

Such is the estimate of Dr. Mussey's character drawn by one whose own elevated Christian virtue is the matured product of a life-time. And such testimony is above all price.

Little more remains to be told; yet, after contemplating a life of such rare excellence and purity, we feel an instinctive curiosity to follow it to the end.

The life, however brilliant, that cannot stand the test of the last dread hour, is at best a miserable failure. But, tried by this standard, the last days of our friend were his

best days. And when the sunset of life drew near, it was with a sublime faith that he could chant those beautiful words of Spenser:

> "Sleep after toil, port after stormy seas,
> Ease after war, death after life, doth greatly please."

During the last two years of his life there was so much of beauty, serenity and peace in his every-day life, that I cannot refrain, in closing, from making a few extracts from the felicitous statement of a friend who was much with him at that time:

"We dreaded for him," says this discriminating friend, "with his intense activity, the relinquishment of professional cares, while his physical frame demanded it; but they were peaceful, happy years that followed, most pleasant to look back upon—the fruitage of his long life, mellowed but not decayed. Enriched by experience and brightened by leisure, they were filled with tender charities, with careful, sometimes too anxious, consideration for others,—with scientific studies, with enjoyments of literature and taste and companionship, which varied, not destroyed, his beneficent activity. In these years he completed and published a book entitled, 'Health: its Friends and its Foes,' which was a great interest and occupation to him. His last publication was a little tract entitled, 'What shall I drink?' issued in his eighty-fourth year.

"His mind was clear and his eyesight little impaired long after his muscular powers failed. His zeal for Christ's kingdom, his love for his friends and appreciation of their solicitous attentions, his interest in little children, his sympathy for suffering, and patient endurance of his own, all were intensified as old age advanced, or rather, as Heaven drew nearer. For Mr. Webb said truly, that to visit Dr. and Mrs. Mussey was to sit down in the land of Beulah, where they abode daily in peace and beauty, serenely

waiting. The little birds sang all around them, but across the river came celestial harmonies. Human interests were strong and sweet, but their steadfast expectation was *Beyond.*

"For two years before his death he was unable to walk, and confined the greater part of every day to his bed; but suffering gradually softened to infirmity, settling in his lower limbs, but, as he would say with a touch of professional satisfaction, 'without an inch of paralysis.' He grew ever more gentle and careful of others, and his mind wrought still on problems of science, while his feelings kept active interest in public events, in family details, and in social intercourse and correspondence.

"Most especially did the reading and re-reading of the Bible satisfy his spirit, feeding at once his largest contemplations and his daily needs. He looked forward to personal acquaintance with David and Isaiah, Abraham and Paul, with the same kind of pleasure apparently, though stronger in degree, that he would have in meeting here, in social life, poets, savans and holy men already familiar to his admiration.

"He said not much of his expected death, only referred to it as possibly near, and seemed to wish to leave with us some last words of counsel without announcing them as such. So quietly did death approach that we were unprepared for it on the day it came. So easily at last he laid his long suffering body down, and went forth new to meet his God."

And this is the brief story of another human life, full of comfort to those who loved him, full of instruction to us. Let his model be ours, from the time when he entered the arena of professional life up to the last peaceful hour, when he welcomed the grasp of that friendly Genius which "opens the gate of Fame and shuts the gate of Envy after it; which unlooses the chain of the captive, and puts the bondman's task into another man's hands."

OBITUARY NOTICE

OF THE LATE

N. W. OLIVER, M. D., OF PORTSMOUTH.

BY DR. T. J. W. PRAY, OF DOVER.

The Committee on Necrology have been apprised only of the death of N. W. Oliver, M. D., of Portsmouth.

N. W. Oliver was born in Waltham, Mass., May 31, 1819; entered Waterville College in 1834; commenced the study of medicine with Dr. Hill, of Augusta, Maine, in 1837; attended lectures at Bowdoin College and was assistant dissector under Dr. Robie. After this he heard lectures at Harvard University and received the degree of Doctor of Medicine at this institution in 1840, at the age of twenty-one years. Soon after his graduation, Dr. Oliver formed a copartnership with Dr. Lane, of Boston, Mass. The labors of this field being so arduous that it did not afford him much time for study and reflection, the partnership was dissolved after three years' duration. Dr. Oliver sought Portsmouth for his life-business. He went to this place, having the testimonials of the most eminent physicians where he had been in practice. In his new sphere of action he soon acquired an extensive practice, and his whole pro-

fessional career was distinguished by a patient, cheerful, and persevering performance of professional obligations, uninterrupted save by two attacks of indisposition — the result of exposure and exertion, too much for even his Herculean strength.

In October, 1865, an attack of illness determined him to seek an European voyage to regain his health. He spent a few months there and returned to his home in May following, resumed his practice with redoubled interest and energy, and never yielded till death called him to other scenes. The summer previous to his last sickness had been one of unusual and fearful exertion. His necessary travel to and from the neighboring town, Rye, was upwards of eight hundred miles; added to this, were the calls of many patients in adjacent places and an extensive city business. Dr. Oliver died with his harness on. His last obstetrical case was in July, 1867, and in the preceding March he successfully operated for strangulated hernia — the third operation of the kind occurring within the space of one year, in patients upwards of seventy years,— and with entire success. His care and advice were frequently sought and obtained upon his bed of sickness, and his last professional visit was only the night before his decease. This visit being urgently solicited, he left his sick-room (not without assistance), passed an hour in efforts to relieve his patient,— returned to his house perfectly prostrated, sank down, exclaiming, "Blessed are the dead who die in the Lord," and on the next day, September 22d, 1868, in a violent fit of coughing, with profuse hemorrhage of the lungs, he was soon no more.

Dr. Oliver was not a frequent attendant of our meetings, but he esteemed himself honored by association with the New Hampshire Medical Society. He was elected vice-president in 1867, and would have been, according to custom, its acting president to-day, had not his failing health

forbade. We cannot better close this brief notice than by quoting a short extract from a letter by one who knew him well. It says of Dr. Oliver:

"Again he comes before me in all the manly beauty of his person and calm dignity of his manner, realizing my idea of a perfect gentleman. His was the ease of elegance and the elegance of ease. I recollect his agreeable style of conversation, giving his opinions in felicitous language, with a deferential regard to the views of others. Sometimes he hesitated for a word, but the right word was always sure to come, and no one could have made a better choice. I recall his manner of lecturing, not as though he was conferring a favor, but as though he was adding to his own mental wealth.

"In the sick-room he was peerless. I remember the gentle tap on the door, the noiseless step, the careful movements, the reassuring smile, the sympathizing word, the earnest, decided tone and manner of giving advice. There was no hesitancy; the prescription was written, and he left the room of the invalid with a few kind words which 'did good like a medicine,' and without the least appearance of haste, however numerous his 'calls' elsewhere. Even when the night witnessed his untiring watch, because the day was all too short for the fulfillment of his arduous duties, how patiently he 'listened to the more than twice told tale,' as though this was the chief ailment of all,—and the suffering patient was grateful. To his brethren of his profession he was especially kind and courteous — always ready to award praise, or to give desired advice. As was said of the noble Bayard, so may it be said of Dr. Oliver, 'If God had made him monarch of some puissant realm, he would have won the world by his courtesy.' He was especially the children's friend and physician. His gentleness won their hearts, and in his last illness how eager were they to carry to 'dear Dr. Oliver' fresh fruits and flowers, gathered by their own little hands. And when he died, the poor and destitute came with the wealthy and refined, to bring their only offering — their tears — for a kind friend and benefactor was gone; and they had no words to tell their grief. His occasional visits had been as sun-light in the houses of penury, and a cloud rested on their dwellings; and on their hearts a deeper gloom."

The theme is not exhausted, but it must be an abler pen than mine to do justice to the noble character of the beloved physician.

REPORT OF THE DELEGATES

FROM THE

NEW HAMPSHIRE MEDICAL SOCIETY.

We, the undersigned, having been appointed by the New Hampshire State Medical Society, according to custom, delegates to examine the graduating class in the medical department of Dartmouth College, and to inquire as to the facilities afforded by that institution for giving thorough instruction in all the branches of medical science, beg leave to submit the following report:

Having been notified by the Faculty of the hour the examinations were to begin, we were promptly in attendance, and had the pleasure of listening to the questioning of each candidate by each professor, and we were also accorded the privilege of examining every one in all the departments. The examinations were very thorough, and, on the whole, very satisfactory, — some of the candidates sustaining themselves remarkably well under the severe tests they were subjected to. We had no hesitation in affixing our signatures to the diplomas of the eleven candidates, and we are confident they will compare well with the same number of students in other institutions. It

must not be inferred that every young man who had studied the three full years and desired to graduate, obtained a degree. On the contrary, two had been privately advised by the Faculty (who judge of the student's qualifications by the daily quizzes) to delay presenting themselves until they were more thoroughly prepared, thus sparing them the mortification of a public refusal.

At the close of the examinations, which were continued through two days, your committee inspected the extensive cabinets of Materia Medica, Anatomy, Surgery, Pathology and Chemistry, and found them provided with all the necessary apparatus for fully illustrating the lectures of the several departments.

On the third day, after an address to the graduating class by one of your delegates, the degrees were conferred by the president of the college.

Your committee cannot close their report without commending this institution to the patronage and generous support of the profession of the state. It seems to us that the oft-presented claims of rival city schools divert our attention too much from our own institution. The country schools have an especial place to fill. A student can study anatomy, chemistry and materia medica better in the country schools because there is less to divert the attention, and because the number of students is less, and he can therefore obtain a perfect view of the dissections and models and chemical experiments, without the aid of a telescope — a matter of the *utmost importance* — and he has an opportunity to examine carefully all the remedies of the materia medica.

We believe this institution should receive our support, not only because it is the only college in our state, but on account of its high moral tone, as well as the scientific accuracy of its teachings. And it is to many of us our Alma Mater — a mother of whom we may well be proud,

for there is not a blot on the fair page of her history. Conservative, yet ever progressive in her instructions, she has never pandered to popular prejudices by adopting any ephemeral *ism*, nor has she resorted to any artifice to attract students to her courts. While she pursues this honorable course, it should be our duty and our pleasure to lend her our cordial support.

Before closing this report your committee would acknowledge their indebtedness to the Faculty for many acts of courtesy, and to this Society for having sent them on so agreeable a mission.

CHAS. F. KINGSBURY, M. D.,
L. B. HOW, M. D.,
Delegates.

REPORT OF DELEGATE

TO THE

VERMONT MEDICAL SOCIETY.

MR. PRESIDENT AND FELLOWS,—

I took the liberty, in the absence of any delegate from our association, to represent the New Hampshire Medical Society at the last annual meeting of the Vermont State Association. Being in the state at the time, I took much pleasure in being able to attend the meeting, and was gratified to witness their proceedings.

The people of Vermont, like New Hampshire, have always maintained a reputation of having an indomitable will to persevere and press forward in whatever they undertake, and a medical man could not but feel pleasure in witnessing the same spirit manifested toward the science of medicine by our brothers in the profession, that is shown in other vocations.

The members meet in June and October, each session consuming two full days, and they evidently mean working days. I was highly entertained by the many able papers which were read and discussed, feeling that Progress was the watchword, and nobly was it heeded.

The promptness with which those on committees responded was commendable, and struck me as unusual in meetings of this kind; but I soon found that to be appointed a committee on any subject was considered a task of honor, and was attended to with zeal, obeying the injunction which is so often quoted, but seldom in duties of this kind regarded, of whatsoever thou findest to do, do with all thy might.

G. P. CONN.

REPORT OF DELEGATE

TO THE

NEW YORK MEDICAL SOCIETY.

BY DR. SMALLEY.

Mr. President and Gentlemen of the New Hampshire Medical Society,—

I had the extreme gratification of attending the meeting of the New York Medical Society the first week in February last, at the city of Albany, as a delegate from this Society. I regret to say that my colleague, Dr. Nathaniel Tolles, was not present.

Their Society, like their state, may well be said to be an Empire Society in more senses than one, not only in its numerical strength and punctuality of attendance, but in the zeal and assiduity of its labors. Its interests in medical subjects and discussions intensified to the close of the third day. Its old and its young members vied with each other in rendering the occasion one of medical and intellectual benefit to all the profession.

This New York Medical Society is composed of delegates from the county medical societies and permanent members. Very many valuable papers were read, and discussions had upon medical and surgical subjects, an abstract of which I lack the ability to do justice to.

Respectfully submitted.

A. SMALLEY, *Delegate.*

REPORT ON REGISTRATION.

MR. PRESIDENT AND FELLOWS,—

As chairman of the committee appointed at our last annual meeting to examine our present registration law, and to petition the legislature to make such alteration or amendments of the same as was necessary to secure a full and satisfactory execution of the law, I would beg leave to report, that immediately after our annual meeting I made inquiry of members of both branches of the legislature, then in session, and found there was a decided feeling against amending our statute laws which had so recently been revised and published, and it was thought best to wait one year and see how far the provisions of our present law were complied with, hoping sufficient returns would be received to allow the compiling and publication of our first registration report. Then all could the better appreciate the designs of the law and be better able to judge what amendments would be necessary to fulfill the requisites of a full and complete registration.

Now, in regard to the practical working of our present law, on making examination of returns at the State-House a few days since, I find that about one-third of the towns have made returns, and those generally being the smaller towns, represent less than two-fifths of our population. In

many cases only partial returns have been made, the town clerk reporting that the physicians (I am compelled to say many of them Fellows of the New Hampshire Medical Society), had either neglected or refused to send in their returns. Of one hundred and fifty-eight deaths reported by the undertakers in the city of Concord, only forty-five were reported by physicians, and only seventy-eight births, when we have reason to believe there must have been more than two hundred. Manchester, Nashua, Portsmouth, Exeter, Claremont and Lebanon, are among those which I remember as not having made any returns. Doubtless in some instances town and city clerks have been remiss in their duties, but in most cases I suspect the physician is the one at fault, and I know of no reason except that inherent disposition to procrastination which we so often find in and about a doctor's office — to put off until the morrow even the collection of his book accounts.

Now, although the law may not be what we might wish in order to carry out our ideas of a full and correct registration, still, had we not better prove ourselves law-abiding citizens, and faithfully perform the obligations of our present law before we ask any amendments.

As the case now stands, the Secretary of State, on whom the statute makes it incumbent to arrange and compile these returns for publication, very naturally feels that if those for whom the statute was made and provided do not consider it of sufficient importance to comply with its provisions, it is not necessary for him to urge its execution; and furthermore, members of the legislature with equal propriety, if called upon to pass amendments, might ask how far we had been faithful to them and ourselves in the execution of the present law.

G. P. CONN,
L. B. HOW.

TRANSACTIONS

OF THE

NEW HAMPSHIRE MEDICAL SOCIETY,

(EIGHTIETH ANNIVERSARY,)

HELD AT

CONCORD, JUNE 21 AND 22, 1870.

NASHUA:
PRINTED BY MOORE AND LANGLEY.
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PROCEEDINGS.

TUESDAY, JUNE 21, 1870.

The Eightieth Annual Meeting of the New Hampshire Medical Society was held at Concord, on Tuesday and Wednesday, June 21 and 22, 1870.

The Society was called to order at 11 o'clock A. M., by the President, Dr. Wm. W. Brown, of Manchester.

On motion of Dr. Gage, voted, That the reading of the proceedings of the last meeting be dispensed with.

The following Committees were appointed by the President:

Committee on the Reception of Delegates from other State Societies :—Drs. Robinson, Gage and Crosby.

Committee to examine Patients :—Drs. Twitchell, Eastman and Smalley.

Committee on Nominations :—Drs. Smith, Parsons, Hill, Tenney and Wheat.

Committee to audit Treasurer's Account :—Drs. Sanborn and Brown.

The Council recommended the following named gentlemen as qualified for membership, who were elected by ballot:

A. C. Burnham, M. D., Hillsborough.
H. M. Dearborn, M. D., Hopkinton.
Robert A. Blood, M. D., New London.

A. M. Winn, M. D., Manchester.
John W. Bucknam, M. D., Great Falls.
Arthur C. Newell, M. D., Farmington.
Rufus R. Foss, M. D., Farmington.
John E. Scruten, M. D., Farmington.
J. Ranlet Smith, M. D., Wolfeboro'.
John Blackmer, M. D., Sandwich.
John W. Barney, M. D., Concord.
Daniel C. Burleigh, M. D., Franklin.
John R. Kimball, M. D., Antrim.
Wm. M. Parsons, M. D., Bennington.

The Council also recommended the appointment of Drs. John Blackmer and J. W. Parsons, Orators for the next Annual Meeting, with Drs. S. W. Roberts and A. M. Winn, substitutes.

At twelve o'clock the President read the Annual Address, and, on motion of Dr. Hill, it was voted, That the thanks of the Society be presented to Dr. Brown for his able address, and that it be referred to the Committee on Publication.

The Chairman of the Council gave notice that Dr. Twitchell, of Keene, had preferred charges against Dr. Silas Cummings, of Fitzwilliam, for violation of the Code of Ethics, and introduced the following Resolutions, which were unanimously adopted:

Resolved, That a Committee be appointed by the Chair to investigate the charges made against Dr. Silas Cummings, of Fitzwilliam, and that they notify him of the same and report at the next Annual Meeting of this Society.

Resolved, That the relations of Dr. Cummings to this Society be suspended until this committee have made their report and the same has been acted upon by the Society.

The President appointed Drs. Smith, of Peterboro', Marshall, of Mason, and Dinsmore, of East Washington, Committee of Investigation.

Dr. Gage, of Concord, gave notice that a bill had been introduced into the Legislature to repeal "An act to promote the advancement of Anatomical and Surgical Science," and, on motion of Dr. Smith, a committee, consisting of Drs. Gage, A. B. Crosby, How, Robinson, and Barney, were appointed to prepare a remonstrance in behalf of this Society, in opposition to the repeal of the act.

On motion, the Society adjourned until two o'clock P. M.

AFTERNOON SESSION.

Called to order by the President, when Dr. A. B. Crosby, of Hanover, read a valuable and interesting paper on the Early History of Medicine in New Hampshire, which was referred to the Committee on Publication.

The Reports of Committees being in order, Dr. Robinson, committee on Diseases of Females, Dr. Twitchell, committee on Fractures, and Dr. Russell, committee on Surgery, read their reports, which were referred to the Committee on Publication.

Dr. How, from the committee to prepare a remonstrance in behalf of the Society against the repeal of an Act for the advancement of Anatomical and Surgical Science, reported the following petition which was unanimously adopted, and signed by all the members present:

To the Honorable Senate and House of Representatives of the State of New Hampshire, in General Court convened:

We, the undersigned, members of the New Hampshire Medical Society, beg leave to enter a respectful, but most earnest, protest against the repeal of the bill passed by the last legislature and known as the "Act to promote the ad-

vancement of Anatomical and Surgical Science." Believing that the bill was rightly named, and that it is absolutely necessary if Anatomy and Surgery are to be advanced in our state; believing, too, that it is humane and beneficent in design and operation, that it is the least we can ask, and the *very* least any community can afford to bestow if it would have a scientific body of surgeons and physicians. For without dissection there is no anatomy; without anatomy there can be no pathology; without pathology there can be no surgery nor practice of medicine worthy of the name. Anatomy is the very foundation of the science of medicine. Without it we must build on quicksand; theory must take the place of fact; the physician must guess where he might otherwise know, and the surgeon's knife blindly grope its way where it ought to clearly see. It is worthy of note that all the great improvements in our art have been made by men who have been good anatomists; who have in the dissecting room obtained the sure, essential knowledge whereon to reason and, at last, educe those great improvements in surgery and practice which have increased the average length of human life, checked the ravages of disease, repaired the damages inflicted by accidents and the bullet, and converted the bed of anguish into one of comparative comfort. Surely a law which affords facilities for the acquisition of such indispensable knowledge must be humane in its design, and it can only be alleged that it is unjust in its operation. It is the same law that has been in force in Massachusetts for over twenty years; less liberal than those that have been in force in other states for a longer time, and in foreign countries for ages. And it is worthy of note that those countries that have been most liberal in providing dissecting material have been blessed with the most scientific physicians and with those who have made the most valuable contributions to medical science.

The insinuation that we would take the bodies of the poor because they are such, we repel with scorn. The prepared skeleton of Warren, who was one of the most conspicuous ornaments of our profession, and who bequeathed his body for dissection, is a lasting protest against the prejudice that forbids the temporary use (not destruction) of the insensate bodies of a few of the dead to save the lives of many of the living. Who are they who bring the charge against us? Do they risk their lives by night and day for the suffering poor, with no expectation of reward save the consciousness of duty done? Do they watch by the bedside of the pauper, do they expose themselves to contagious diseases, do they heed the cry of the wounded for help?

And who, more than the poor, need the services of skilful surgeons? They are most frequently injured and oftenest sick, and unless they can have skilful treatment they and their families must suffer *needlessly*.

We ask only for unclaimed bodies and for the bodies of those who have expressed no desire to be buried, and we only ask to detain these temporarily on their way to the grave, for the benefit of science and humanity.

Your petitioners are not brutes. We are many of us Christian men. We claim to have as tender hearts as our fellow-men. We are as careful for the living and as considerate for the dead. We do not ask you to contribute towards our happiness,—but only that we may perform a disagreeable and dangerous duty in peace. You fine us for ignorance. Will you withhold from us the means of obtaining knowledge? You trust to us implicitly the lives of those who are dearer to you than all. Give us, then, we beg, the only means of obtaining the skill whereby we can restore them to you in health and happiness.

(Signed by) W. W. Brown, President,
W. H. H. Mason, Vice-President,
G. P. Conn, Secretary.

Dr. Marshall, Committee on Necrology, read an obituary notice of the death of the late Dr. John G. Parker, of Warner, and Dr. Smalley read a notice of the death of Dr. John Clough, of Lebanon, which were accepted and referred to the Committee on Publication.

The Report of the Delegates to Dartmouth Medical College was accepted and ordered to be printed with the Transactions.

REPORT OF THE DELEGATES FROM THE NEW HAMPSHIRE MEDICAL SOCIETY.

The undersigned, delegates elected by the New Hampshire Medical Society at the last annual meeting, to attend the examination of candidates for graduation at the Medical department of Dartmouth College, would submit the following report:

Having been notified by the Secretary of the Faculty of the time of the examination, we were present and attended to the duties assigned us. Out of a class of fifty-two young gentlemen, eleven presented themselves for graduation. They were examined separately in the several departments of medical science by the Professors, your delegates listening to and participating in these examinations. We were satisfied by the prompt and correct answers, and by the familiarity evinced generally on the part of the candidates, that their instruction had been thorough and complete; that the foundation of a good medical education was well laid, and that they will only have to continue their studies in the future with the same zeal and assiduity, aided by experience and observation at the bedside, to make good practitioners, who will reflect credit upon an honorable and useful profession.

The theses or dissertations of these candidates were submitted to the examination of your committee. While all were well written, some of them were productions of rare

merit, and would have done no discredit to older members of the profession.

The Institution is located in a quiet and beautiful village on the banks of the Connecticut river, far away from the noise, confusion and temptations incident to large cities. It is well supplied with all those appliances usually found in the medical colleges for imparting medical and surgical knowledge. The lecture rooms are commodious and well lighted. The anatomical cabinet is large and nearly perfect; the wet preparations, casts and models in the department of general pathology are numerous, and afford ample facilities for imparting thorough, systematic and accurate information. That also of surgical pathology, illustrating the different fractures, dislocations and the various kinds of morbid growths, is extensive. The museum of materia medica and medical botany is unsurpassed in extent and variety, and is well classified, and all made ready and available for illustration. The chemical department is furnished with everything requisite and necessary for studying this important branch of medical education. In obstetrics there are a large number of preparations, and specimens exhibiting the different stages of fœtal development; manikins for illustrating the different presentations and mechanism of labor,—in fact all the modern aids for successfully imparting instruction in the various branches of the "healing art" are to be found in this institution.

In closing this brief report, your delegates take pleasure in assuring the members of the New Hampshire Medical Society, and all others interested in medical education, that in their opinion the New Hampshire Medical School, under the care of its present able and efficient Board of Instructors, is inferior to none similarly located, and they trust it will receive the encouragement and generous support of all true friends of legitimate medicine.

March 24, 1870. H. B. BURNHAM, M. D., V. MANAHAN, M. D., } *Delegates.*

Dr. Smith, from the Committee on Nominations, read the report, which was accepted, and, on motion, was laid on the table, and made the special order for Wednesday, at eight o'clock A. M.

Adjourned to meet at 7 1-2 o'clock this evening.

EVENING SESSION.

Called to order at half past seven o'clock.

Dr. Kingsbury, not being prepared to read an oration, was excused for the present, and continued another year.

Dr. Conn read a dissertation on Nutrition in the Cure of Disease, which was accepted and referred to the Committee on Publication.

Drs. Smith and Marshall, delegates to Vermont and Massachusetts Medical Societies, made verbal reports, and Dr. Parsons gave a *resume* of the proceedings of the National Medical Association at Washington.

Cases were reported and discussed, after which the meeting adjourned to eight o'clock Wednesday morning.

WEDNESDAY, JUNE 22.

MORNING SESSION.

The President called the Society to order at eight o'clock A. M., when the report of the Committee on Nominations was taken from the table, and the following members were elected officers for the ensuing year:

PRESIDENT.

W. H. H. MASON, M. D., Moultonborough.

VICE-PRESIDENT.

J. F. HALL, M. D., Portsmouth.

SECRETARY.

G. P. CONN, M. D., Concord.

TREASURER.

THOMAS WHEAT, M. D., Manchester.

COUNCIL.

D. T. Parker,
S. L. F. Simpson,
S. W. Roberts,
A. M. Winn,
G. C. Clough,
S. M. Whipple,
Val. Mannahan,
H. B. Burnham,
Earl Evans,
J. L. Sweat,
E. F. McQuesten,
T. R. Crosby

CENSORS.

E. L. Carr,
D. S. Clark,
J. F. Brown,
G. W. Cook,
H. Weymouth,
John West,
J. M. Whittaker,
Geo. Sanborn.

DELEGATES TO DARTMOUTH MEDICAL COLLEGE.

John Wheeler, Barnstead, G. P. Conn, Concord.

DELEGATES TO OTHER STATE MEDICAL SOCIETIES.

Maine—W. G. Carter, D. T. Parker.
Vermont—T. H. Currie, T. R. Crosby.
Massachusetts—S. L. F. Simpson, A. H. Robinson.
Rhode Island—H. B. Burnham, L. W. Peabody.
Connecticut—B. H. Phillips, Edward Aiken.
New York—J. C. Eastman, F. W. Graves.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.

Geo. A. Crosby,
W. D. Buck,
Albert Smith,
John Wheeler,
C. P. Gage,
Geo. B. Twitchell,
J. W. Parsons,
J. C. Eastman,
Leonard French,
L. G. Hill,
J. L. Sweat,
W. M. Parsons.

STANDING COMMITTEES.

On Surgery—Geo. A. Crosby.
On Practical Medicine—J. F. Fitts.
On Necrology—J. S. French.
On Routine in Medical Practice—W. D. Buck.
On Compensation of Physicians—C. P. Gage.
On Sanitary Condition of Almshouses—J. H. Wheeler.
On Mental Diseases—J. P. Bancroft.
On Publications—G. P. Conn, Thos, Wheat, N. Call.
On Arrangements—G. P. Conn, A. H. Robinson, L. B. How.

On the recommendation of the Committee on Nominations, the Society *Voted*, That the next Annual Meeting be held in Concord, on Tuesday, prior to the first Wednesday of June, 1871.

The Society also, *Voted*, That the Committee of Arrangements be instructed to provide an Annual Dinner, to be paid for by the sale of tickets to members of the Society,—the price not to exceed one dollar and a half.

The following Resolution, passed by the American Medical Association, was read and referred to a committee consisting of Drs. Conn, W. W Brown, How, Simpson and Kingsbury, with instructions to report at the next annual meeting:

Resolved, That each State Medical Society be requested to prepare an Annual Register of all the regular practitioners of Medicine in their respective States, giving the names of the colleges in which they may have graduated and date of diploma or license.

The following Preamble and Resolutions, from the committee of the American Medical Association, on National Medical Education, were laid on the table and ordered to be printed:

Whereas, The history of medical legislation in the various States of this Union, clearly shows that no reliance can be placed on either the uniformity or the permanency of any laws relating to the practice of medicine; and

Whereas, The results of all the efforts made during the last twenty-five years, to elevate the standard of medical education, through concert of action among the numerous medical colleges of this country, have proved with equal clearness that such concert of action, in an efficient manner, is unattainable; therefore, be it

Resolved, That whatever is done to establish and maintain a just and fair standard of medical education throughout our whole country, must be done by the profession itself, through its own voluntary organizations, in the same manner that it now establishes and enforces its code of ethics. The profession is as competent to declare, through its representatives in the national, state, and local societies, what shall be the standard of attainments for those to be recognized and admitted into its ranks, and to establish the boards or agencies by which compliance with such standard shall be ascertained, as it is to declare what shall be the ethical rules governing the conduct of those already admitted.

Resolved, That this Association earnestly request each State Medical Society to appoint annually one or more Boards of Examiners, composed of five thoroughly competent members, whose duty it shall be to meet, at suitable times and places, for the examination of all persons, wether graduates of colleges or not, who propose to enter upon the practice of medicine in their respective states, except such as have been previously examined and licensed by a similar board in some other state.

Resolved, That each State Medical Society be requested to make such regulations concerning the pay of the Boards of Examiners, and the fee to be charged for a license to

practice, that the former shall in no case depend on the amount received from the latter.

Resolved, That each State Medical Society be requested to require its Examining Board, or Boards, to exact from every applicant for examination, adequate proof that he has a proper general education; is twenty-one years of age, and has pursued the study of medicine three full years, one-half of which time shall have been in some regularly-organized medical college, whose curriculum embraces adequate facilities for didactic, demonstrative, and hospital clinical instruction.

Resolved, That each State Medical Society be requested to act on the foregoing propositions, at the next regular annual meeting after the reception of copies of the same, and if approved and adopted by the State Medical Societies of two-thirds of the States, this Association shall deny representatives from all organizations who longer refuse to comply with the same, and shall recommend the State Societies to do the same, and all persons who, after that date seek to enter upon the practice of medicine without first receiving a license from the State Board of Examiners, shall be treated ethically as irregular practitioners.

Resolved, That in adopting the foregoing resolutions, by which it is proposed to treat the Medical College diploma the same as the diploma of any literary college, this Association is actuated by no desire to injure the Medical Schools of our country. On the contrary, by the adoption of the fourth resolution at the same time that the value of the mere college diploma is practically nullified, it is the desire, and confident expectation, that those institutions will be greatly benefited; because they will be forced to rival each other in the extent and efficiency of their courses of instruction, instead of the number of diplomas which they can annually distribute.

On motion, the committee on publishing a new edition of the Code of Ethics was continued.

On recommendation of the Council, Dr. Geo. H. Hubbard, of Lancinburgh, N. Y., was elected an honorary member of the Society.

No further business being before the meeting, on motion of Dr. Simpson, it was voted to adjourn, to meet at Concord the first Tuesday in June, 1871.

G. P. CONN, *Secretary.*

ANNUAL ADDRESS.

BY THE PRESIDENT, WILLIAM W. BROWN, M. D.

FELLOWS OF THE NEW HAMPSHIRE MEDICAL SOCIETY:

On this, the eightieth anniversary of our organization, it becomes my duty to address you upon some subject or subjects appertaining to the profession of medicine. As I do not design to confine myself to one particular topic, I shall take the liberty to be somewhat desultory in my remarks, and first of all, permit me to congratulate you on this the great occasion of the year to us who are seldom permitted to leave the precincts of our daily labor. This annual fraternal greeting is productive of great good, and we always return to our homes and duties happier, wiser, and better men. Interchange of thought and sentiment among ourselves is an inestimable privilege, and to us who have a common object in view, which constitutes the business of our whole life and is no less than the well being of our fellow men, this meeting is a source of no ordinary pleasure and profit. Reciprocity of thought and opinion upon the great subjects of our daily employment, tends not only to instruct and enlighten our minds, but perpetuates that fraternal feeling which should ever exist among us. Petty jealousies and slight misunderstandings among members of the same profession, usually arise from a want of acquaintance with each other, for when we know each other well

we generally find much to admire and appreciate, and hence originates that sincere friendship among members who have had the privilege of a long and pleasant acquaintance.

At this era in our history, it seems highly proper to make a slight reference to the unparalleled progress that has been made in every branch of medical science and literature during the eight decades which constitute the full term of the existence of our organization, and to refer to some of the names of the scores and hundreds of the great and learned men in this country and in Europe, who have devoted their whole lives to the arduous labor of experimenting and making discoveries in all that pertains to the science of medicine, and have given us octavos, quartos and folios in almost infinite profusion as the result of their researches. It would be pleasant to recount the wonderful revelations in particular, that have been made in anatomical science, disclosing to our view new beauties and phenomena that fill our minds with surprise and admiration of the handiwork of the Great Artficer of our bodies, and throwing a profusion of light upon the dark mysteries of our curious organization, and greatly aiding us in our beneficent efforts to remove disease.

We cannot doubt that anatomical science was in its infancy at the time of the formation of this Society, though old in years, and yet the medical men of that time were learned in all the wisdom of the age and not a whit behind the best scholars we now find in the abundance of their labor and research, and in their untiring assiduity and perserverance in accumulating all the knowledge of their day and reducing that knowledge to practice. Their exertions and persevering industry were indeed unparalleled in the annals of men of science, and the continuation of that energy and love of research down to the present day, has resulted in the achievement of the vast amount of erudition and

wisdom which now constitutes the greatest blessing of the present age.

With equal propriety we may remark, that comparatively little was known of physiology until the immortal Harvey discovered the circulation of the blood, two hundred and fifty years ago, and that very little progress was made in that science until the time of Haller, who may with great certainty be considered the father of modern systematic physiology. His treatise upon the subject was first published in this country about seventy-five years ago; and by comparing that great work for the time, with that excellent compendium of the science at the present day, written by Dalton, we shall see what rapid progress has been made in that highly important department of medical literature and science.

In comparing the works on Etiology and Therapeutics which the founders of this Society possessed, with those in our hands at the present time, we shall be no less astonished at the remarkable advancement made in those departments of medical knowledge. Nor can we readily imagine with what astonishment and admiration a physician in practice eighty years ago, would have looked into our works on Materia Medica, and there beheld the long and important list of new remedies and the elegant and greatly improved forms of administration. Nor would he have been willing to believe we had been able to obtain the active properties of so many nauseous but valuable drugs in such concentrated form, as we have them in our alkaloids, alcoholic and fluid extracts.

At the present day our superior facilities for acquiring a thorough knowledge of anatomy have given to surgical science a great and most desirable impetus. The surgeon now acts, not from hypothesis in any case, but intelligently, and is guided by well defined and accurately demonstrated general principles. Formerly the surgeon who could am-

putate a limb, or perform any other capital operation in the least number of minutes, was considered the best operator, and the most desirable person to be employed in operative surgery; but now, while we operate with deliberation and proper care, our patient is enjoying pleasant dreams and allows us ample time to do our work well, and in this department of our duties, we seldom have occasion to be reminded of the truth of the old adage, that "What is done in haste is ill done."

We once saw an old operator, in his haste to be dextrous in amputating a thigh at the middle third, after having adjusted the tourniquet, *cut with one long circular stroke of the knife all the textures of the limb to the bone!* forgetting to dissect back the skin and cellular substance that there might be wherewith to cover the wound. Having proceeded thus far, he called for the saw, and would have completed the exploit in the next three or four seconds had not the writer suggested the propriety of using the retractor at that stage of the performance. The retractor was applied and the operaton completed as well as it could be under the circumstances, but there was an uncovered space of two and a half inches in diameter over the centre of the stump after much force had been used to approximate the edges of the skin. Sloughing of the soft parts and secondary hemorrhage resulted and re-amputation was resorted to after ten days. It was unpleasant, to say the least, to have such a case left in our care, although it was one of the misfortunes to which young members of the profession are sometimes liable.

At that period the most learned and elaborate work on chemistry was that of Lavoiser, which, although almost a miracle of labor and research, for the time, when compared with our modern treatises, which are fully up with the times, discloses to us the fact that our fathers had scarcely commenced the study of that beautiful and higly impor-

tant branch of medical science. Mr. Henry, of Manchester, England, whose great work on chemistry was published in London in 1804, and whose fourth edition was reprinted in New York in 1808, made the following remark in his introductory discourse :

"The possession of the general principles of chemistry enables us to comprehend the natural relations of a great variety of events that form a part of the established course of nature. It unfolds the most sublime views of the beauty and harmony of the universe ; and developes a plan of vast extent and uninterrupted order, which could only have been conceived by perfect wisdom and executed by unbounded power. It tends to strengthen the faculty of patient and accurate thinking, and to substitute placid trains of feeling for those which are too apt to be awakened by the contending interests of society or the imperfect government of our passions. By withdrawing the mind from pursuits and amusements that excite the imagination, its investigations may tend to the improvement of our intellectual and moral habits."

Here we have expressed the view the learned Mr. Henry had upon the subject sixty-five years ago. He was confident the study of chemistry was pleasant and that it would lead the mind to the contemplation of a superior intelligence, and that its investigation would take the attention of the student from the empty nothingnesss of light and fictitious reading, and concluded it might be beneficial as it would teach us to govern our passions and lead our minds upward to the contemplation of the great Source of all wisdom and power. His language is truly eloquent, but shows how very circumscribed were his inspirations at the time he wrote the above sentences. Could he have had but the slightest view of the inestimable benefits that were so soon to result from the investigation of nature, then about to take place in the world, flowing from the pursuit of experimental

chemistry and its application to the mechanical and fine arts, as well as to agriculture and medicine, no language could have possessed a sufficient amount of eloquence to have shown forth his prophetic intuitions upon the subject. Nevertheless, he was wise for his day and generation, and his was one of the standard works upon the science for many years.

Let us for a moment glance at the remarkable advances made in pathological science within the last eighty years. We have learned by the aid of auscultation and percussion to ascertain accurately the true condition of those great organs so important in the machinery of our physical organization, contained within the cavity of the thorax. We are also enabled by careful chemical analysis of the secretions and excretions of the various glandular structures, to treat rationally the diseases to which those organs are liable. We have also learned by the aid of curious and ingeniously constructed instruments to avoid the terror of some of the most formidable operations in surgery; while other instruments have been invented by which the true pathological condition of the larynx and trachea and of the deep-seated structures of the eye and ear can be ascertained with great and surprising accuracy, so that our treatment of the diseases of these important organs is less hypothetical and based upon true pathological principles. Formerly many of our prescriptions were almost entirely empirical, from our want of knowledge of the true pathological condition of the part affected, whereas, we now act understandingly, and far more successfully, for the benefit of our patient.

Notwithstanding the combined efforts and untiring labors of the votaries of the various systems of charlatanism to retard the onward march of medical science, and keep the people in ignorance respecting the great laws of life and health, we have only to rejoice that we live in an age

of progress, and that every branch of learning appertaining to our profession has advanced with surprising rapidity.

Homœopathy, the queen of the fallacies of the last half century, which is a lie in its inception and all its details, and which has no rationality in its theory or practice, has had its day and will soon pass away to give place perhaps, if possible, to the production of some brain less healthy and more prolific in its hallucinations than that of Hahnemann; and as one secret nostrum after another has its time to flourish, and is supplanted by something new and more enchanting in its wonderful potency, so of the various forms of empiricism, each in its turn being followed by some new and ingenious method of deceiving the people, who are ever fond of being duped and led astray in consequence of their innate love of novelty and mystery.

As the curators of public instruction have commenced an effort in New England to have the study of anatomy and physiology embraced in the rudiments of the early education of children, there is some hope that the rising generation may be more enlightened respecting the laws of life and the preservation of health, than their fathers and mothers have been, and consequently less easily led astray by the multitude of base pretenders to knowledge in medicine.

The people have been taught by these imposters to believe that our researches are almost exclusively confined to the mineral poisons, and hence the peculiar charm that empiricism presents to their minds is the assurance that these ignorant persons deal only in medicinal articles that are purely vegetable.

It has often been said of the founder of that system of quackery called Thompsonism, that he made it a point and a very important one, to exhibit to his patients his own inferior extremities, which were covered with *nodes* and ulcerations of a *peculiar character*, with a view to demonstrate the poisonous effects of mercury. By this we are

forcibly reminded of an incident that occurred at the University of New York, twenty-five years ago. On the regular day for Prof. Valentine Mott's clinic, among the patients who appeared before the class was one who had nodes and ulcerations of a like character. The patient remarked that he was sick many years ago and took mercury, which had "settled" in his limbs and caused the disease. After the patient had retired Dr. Mott drew himself up with all his accustomed dignity, and with more than his ordinary energy, remarked: "Gentlemen, many things in medicine are uncertain, but one thing I *know* to be true, and that is this, that mercury never produced syphilis."

Could we convince the popular mind that our researches are unlimited, and that the whole world is our field of action, and that we convert to our use every new discovery in medicine, as soon as it comes to our knowledge, regardless of the source whence it originates, much would be done to diminish the charm of the new systems of practice which now lead so many astray and endanger their lives.

Having made these few remarks upon the progress and present state of medical science, it may be profitable to inquire like one of old, "Watchman, what of the night?" or in other words, where are we, and whither are we tending? In the present noonday effulgence of medical knowledge, how will our present mode of practice compare. as to utility, with that adopted and pursued by our fathers, half a century ago; and are our patients more safe in our hands than were our ancestors in theirs?

A medical student in London, recently, while under examination for a degree, was asked by the learned examining professor, to give a concise definition of the healing art. After a moment's pause he answered, "It is the art of amusing the patient while nature cures the disease." Professor Johnson, of King's College, London, in his intro-

ductory lecture, November last, says: "The most general and comprehensive statement with regard to the cure of disease that can confidently be made is this: most of the diseases that are curable by any means are curable by the unaided powers of nature; and the chief art of the physician, as of the surgeon, consists in regulating and directing those natural forces which will cure a fever or an inflamed lung as surely and completely as they will heal a wound or mend a broken bone." With this view of the subject, we should in all cases adopt the expectant mode of treatment and leave all, in ordinary instances, to the "unaided powers of nature." And Dr. Johnson would, no doubt, say that extraordinary cases were incurable and, of course, would terminate fatally, whether treated or given up at once as hopeless.

Now let us be permitted to inquire, seriously, for it is a subject of immense magnitude, whether this is not a most dangerous doctrine to advocate. If we have nothing to do at the bedside but to stand by while nature accomplishes *all*, unaided by any effort of ours to assist her in her labor to throw off and overcome disease, it will be far more commendable for us to turn our attention to some other pursuit and leave the patient to the care of the nurse.

The heroic treatment recommended and practiced by Armstrong, Rush and others of their time, and which we all adopted in our every day practice, thirty years ago, undoubtedly broke down and cured many acute diseases, which if left to nature would have proved fatal; yet a large quantity of the immense profusion of the vital fluid which we were accustomed to draw from our patients by the lancet, antimonials, calomel and jalap, no doubt might have been saved without jeopardizing the individual. Our patients under that treatment usually recovered without asthenic symptoms, and there seemed much less tendency to that condition than at present. Would they have re-

covered under the expectant treatment, as recommended by the learned author of the above quotation? Can we cure acute peritonites and pleuro-pneumonites without treatment of an active character? Usually we can accomplish it without the lancet, though perhaps in some cases more speedily with it; yet our treatment must be energetic and adapted to the exigencies of the case.

There is little doubt that the acute diseases of the present time have a greater tendency to asthenia than before the cholera swept over our land in 1849; and many patients would soon sink under the active treatment usually adopted previous to that period. Yet, unless we exercise great discrimination, we shall lose many of such cases by a course of treatment too inefficient, on account of our fear of inducing symptoms of an atonic character.

From a system of practice too exhausting to the vital powers, have we not reason to fear we have imperceptibly drifted to the opposite extreme, and, instead of aiding the *vis medicatrix naturæ* by proper and timely means, are we not too much inclined to leave *all* to the unaided powers of the vital forces? In order to demonstrate the position here indicated and show that there may be some consistency in the foregoing remarks, I must beg leave to relate the following case, which to the writer was a very interesting one. It is here transcribed from notes taken at the bedside, and in its management we acted as we should have done thirty years ago, under like circumstances. Whether we acted wisely may be inferred from the symptoms and result of the treatment.

Dec. 2, 1869, at 3 o'clock P. M., was called to visit I. W., an active, intelligent young man twenty years of age, who worked in a cotton mill during the day and spent his evenings at the commercial college in the study of book-keeping. Twenty-four hours previous to my visit he left the mill, indisposed, and on arriving at his home, a few rods distant,

complained of great chilliness and severe pain in his head, back and limbs. After getting warm he began to cough and soon became delirious, and spent the night and the next day, until the time of my visit, in a restless, hot and raving condition. I found him laboring under a double pleuro-pneumonia, with a small, sharp and wiry pulse, 130 per minute; respiration 36 per minute; cough almost incessant, with rusty sputa. On percussion, the right lung was dull under the clavicle, showing the commencement of hepatisation, and the left had the slight dullness and peculiar sound which we always notice in congestion. Auscultation gave the crepitant rate in the superior and inferior portions of the right lung, and in the central part, there was distinctly heard the crepito-bronchial sound, which always indicates the passage of congestion into that of hepatisation, while the crepitant rate was distinct throughout the left lung.

Treatment.—The chest to be enveloped in a poultice of linseed meal and ground mustard, the proportion of the latter to be small, that the patient might be able to endure its effect. To take Pulv. Ip. Comp., eight grains every hour and a half, and Tinct. Veratrum Viride, four drops every half hour, until perspiration should take place.

At 9 P. M., six hours after my first virit, found the patient, in all respects worse, and rapidly hurrying towards a fatal termination; skin still dry and respiration more rapid; pulse 135, with furious delirium. It now seemed almost certain the patient would sink into a hopeless condition very soon unless relief could be obtained in some way. Case after case of a similar character was called to mind, treated many years ago, in which venesection had reduced the frequency and increased the fullness of the pulse under like circumstances, and in this instance nothing was to be hazarded, for the urgency of the symptoms was such as to admit of no delay and the resolution was formed to treat

the case as we should have done twenty-five or thirty years ago. While the patient was held by two strong men, we succeeded in opening a vein in the arm, and as the blood flowed freely from a large orifice, he became more tranquil and a gentle perspiration broke out all over his body, and the pulse, which before the operation could with great difficulty be counted, became fuller, more distinct and slower, and as syncope approached, after losing about twenty ounces of blood, he fell asleep for the first time since the attack, and breathed slower and more free—a result we have often seen from blood-letting under like circumstances. As he rallied from the effects of the venesection, the delirium returned, and the skin became dry again, although a decided impression had been made upon the circulation. The patient was then to take half a grain of Tart. Antimony every half-hour until vomiting should take place, the medicine then to be discontinued and the Pulv. Ip. Comp. to be resumed in eight grain doses every second hour, and the poulticing to be continued. With these directions the patient was left for the night. Was called at 3 o'clock A. M., and found him prostrated by the effect of the medicine. He was covered with a profuse cold perspiration, with a pulse of 100, and respiration much easier and slower with free expectoration of a rusty appearance. During the next six hours whiskey was freely administered, and at 9 A. M., Dec. 3, eighteen hours from the time of my first visit, the patient presented the following symptoms: Sleeping quietly, and on being aroused recognized me for the first time since the attack; pulse 100, soft and full, expectoration free, and sputa still brick-colored; full inspiration caused lancinating pain in the left side. A large blister was drawn upon the side, over the region of the pain, and the chest covered with a thick envelope of cotton batting. He was to take nourishment, stimulants and opiates as the symptoms should require.

Dec. 4. Dullness nearly gone from the left side and sound more normal in the posterior portion of both lungs; pleuritic pain subsided and expectoration free and still tinged with blood; skin moist and intellect perfect; pulse 90 and more natural.

Dec. 5. Patient improved in all respects and continued to amend daily, and was able to return to his work in twelve days from the date of my first visit.

Now is it presumption to inquire whether many of our patients in these days of expectant temporizing might not be saved by a like prompt and energetic treatment? Have we not more entirely discarded the use of the lancet than the well-being of our patients in some instances requires, and in our retrospections of professional experience, are not cases like the one above narrated more pleasant to contemplate than others, in which the result was far different, and the friends of the patient were obliged to console themselves in the belief of its being a *peculiar dispensation* of Divine Providence.

Let it be distinctly understood that the writer of these remarks claims no exemption from the sins of omission of which he fears we are all more or less guilty; and permit him once more to inquire whether we have not gradually gone too far to the opposite extreme, and too much settled down into a puerile, inefficient, do-nothing mode of treatment for the safety of many of those who confide in our integrity and skill.

In the practice of our profession, each new case of disease that falls into our hands, is like a theorem in mathematics. It is something to be carefully studied and demonstrated, as no two cases are alike—each differing from all others we have ever seen before. Each person has a constitution and idiosyncracy peculiar to himself, and although he may have a disease of the same class, order, genus, species and variety of that of his neighbor, yet the same treatment, let

the disease be what it may, will not be judicious in both cases. Although we may have but little time to devote to a particular case, we cannot do it justice without much thought and the exercise of great care and discrimination. To make a prescription before we understand the case thoroughly, and also the peculiar constitution and habits of the individual, is a crime, for by so doing the well being of the patient may be endangered.

How very little our patients usually realize how great are our labors, anxieties and responsibilities, and how little are they mindful of our solicitude for their safety, while suffering under a disease that threatens their physical existence! And when we have labored for their welfare by the exertion of all our energies of mind and body, and have the satisfaction of seeing them recover from the very verge of the grave, at the expense of our utmost skill, perseverance and industry, while ourselves are fatigued and exhausted by the effort, how little of gratitude we may usually expect! The patient is inclined to believe his recovery was only what he had a right to expect and that in all our attentions to his case we had scarcely done what was our duty, and that, perhaps, some other physician would have relieved him much more speedily and more thoroughly. Yet this thoughtless inappreciation of our best efforts in medicine, is not a characteristic of all minds, and fortunately for our happiness, there are some persons, although the proportion in point of numbers may be small, who are ever mindful of the value of our labors to rescue them from danger and by whom our endeavors are duly estimated. Were it otherwise, we should all abandon the profession and turn our attention to other pursuits. As no two physical organizations are alike, we find the same diversity in the mental constitution and developement, and thus in our association with our fellow men, some bright

spots are intermingled with the dark shades that too often border the pathway of our progress through life.

In the discharge of the high and responsible duties of a noble and honorable profession, it becomes us at all times so to act as to insure a consciousness of having done our whole duty, that our retrospections of our labors for the benefit of suffering humanity may be pleasant to contemplate when we shall have passed away to a better and more perfect state of existence, where "We shall see as we are seen and know even as we are known."

REPORT ON SURGERY.

BY M. W. RUSSELL, M. D.

The substantial advances which surgery, both as a science and an art, is constantly making, are a source of congratulation to every member of our profession. And when it is remembered that every improvement in surgery alleviates physical suffering and lessens the aggregate of human misery, we can but rejoice in every evidence of its progress, and feel admiration for the devoted men of the different ages whose untiring efforts have placed it in the proud position it occupies to-day. The spirit of the age—a bold, ever active, inquisitive spirit,—is thoroughly infused into the medical profession. This spirit leads to a constant quest for new truths and the development of new facts. Nothing is regarded as true simply because it has the support of great names. Antiquity of theory is no longer considerded evidence of its correctness, and opinions which have been held sacred since the days of the fathers are boldly criticised and at once rejected, if found inconsistent with known facts or the convincing demonstrations of actual experience. Active minds in our profession eagerly watch the discoveries and advances in the collateral sciences, to take advantage of anything that may concern, however remotely, the interests of surgery. With such a spirit abroad in our ranks, surgical science can but make rapid progress.

It is not to be supposed, however, but that truths at times will be rejected with errors, and that many theories and plans of treatment will be proposed which will be remembered as wild vagaries or useless innovations; but these are incidents in the progress of every science.

The developments and discoveries of surgical science have the tendency, I think, to make surgeons more conservative. A blind and brainless belief in the efficacy and necessity of powerful drugs or the use of the knife, the seton and the moxa, on all occasions, for the cure of surgical diseases, finds no place in the creed of the intelligent surgeon to-day. As year by year the natural history of diseases is better understood, and the ability of nature and favorable circumstances to combat with even the most formidable diseases, surgeons are coming to see more and more clearly that their duty is to assist nature and follow her indications.

Perhaps in no department of surgery have more important advances been made within the past few years than in the treatment of the diseases of the eye. In 1851 Helmholtz discovered the ophthalmascope, which has proved of incalculable value in diseases of this organ and has completely revolutionized ophthalmic surgery. In no disease are the triumphs of modern surgery exhibited to better advantage than in glancoma. This is one of the most important and dangerous of the diseases of the eye; and if allowed to run its course unchecked except by inefficient remedies, the eye is doomed sooner or later to irremediable blindness. Hippocrates applied the term glancoma to all opacities back of the pupil. After a time it was confined to those which presented a green appearence. Their nature, however, was not understood; but the fact was recognized that such opacities were not curable by operation. Till 1851, when the opthalmascope was discovered; the knowledge of this disease was meagre and unsatisfactory, and the treatment of it entirely fruitless. Soon after this, ophthalmascopic in-

vestigations carefully pursued by Jaegee and others, showed that in nearly every case of well marked glaucoma, certain peculiar alterations existed in the optic disk. But it was reserved for the great genius of Von Graefe to unite the various symptoms presented by this disease into one connected whole, and not only to found the modern doctrine of glaucoma, but at the same time to give to the world a cure for this hitherto irremediable affection. A description of the various steps by which he worked out this mighty problem constitutes one of the most intensely interesting chapters in the whole history of surgery. Graefe first performed iridectomy in glaucoma in 1856, and since that time it has come to be regarded by the most eminent oculists in Europe and this country as the only cure known at present for this disease. No other remedies should be trusted, as they have all failed, and will fail, and by trying them we should allow valuable time, in which iridectomy would save the eye' to pass irrevocably away. It is of the greatest importance that every surgeon should be able to easily recognize the disease, and competent to perform iridectomy for its cure ; for in some cases of acute glaucoma the delay of the operation for a day or two, or even for a few hours, would prove most disastrous. A large segment of the iris should be removed quite up to its ciliary attachment. The size of the iridectomy required depends on the intensity of the symptoms and the amount of intraocular pressure. The benefit to be derived from this operation varies according to the stage and variety of the disease ; but may be briefly stated to be as follows: If iridectomy is performed early, the sight will be restored perfectly ; if performed later, the further loss of vison will be prevented. In a few cases on record, where there has been a total loss of sight for ten days, vision has been restored.

In iritis our chief reliance is upon atropia to dilate the pupil, and thus give rest to the iris, and prevent posterior

synechiæ. The solution should be used as strong as four to six grains to the ounce of water, as weak solutions cannot produce a dilatation of the pupil when the tissue of the iris is inflamed. Patients will apply the atropia with much greater regularity if told to use it every five minutes for half an hour at a time, and to repeat this three times a day. If the case is seen early, before adhesions are formed, we can usually succeed in producing thorough dilatation of the pupil in a few hours, after which it is easily maintained. If the posterior synechiæ are firm and broad, the atropia should be used only in moderation to soothe the irritability of the eye; but if they are of recent origin and brittle, the continued use of this remedy will often succeed in tearing them through. In addition to the atropia, opium to quiet the pain, and fomentations, usually meet all the indications for treatment. The patient should be instructed to take a basin of water, as hot as can be borne, and with a soft cloth bathe the eye for fifteen or twenty minutes, and repeat this at regular intervals, so as to occupy about one third of the time in bathing. Cathartics are not required as remedies in inflammatory diseases of the tunics of the eye. If constipation exists, it may be treated by laxitives, as when occurring in any other condition of the system; but I think we should avoid irritating twenty feet of intestinal canal without some good reason. Surgeons as well as physicians are too ready to resort to heroic treatment in all cases of disease which do not yield at once to mild measures, and nowhere is this readiness more strongly shown than in diseases of the eye.

The application of poultices to the eye cannot be too severely condemned. The number of cases of blindness caused by opacity of the cornea, the result of their injudicious use, is legion; but I am sorry to say that we constantly know of their being recommended and used by surgeons. Sugar-of-lead should never be used as a collysium,

on account of the danger of forming an insoluble coating, especially if there is any ulceration of the cornea. All astringent washes are injurious in iritis and corneitis, but useful to a certain extent if used judiciously in conjunctivitis.

The early opening of abscesses, with the idea of saving time and relieving suffering, I regard as injudicious. The old idea that an abscess ripens has more than a grain of truth in its composition. My rule is to let the abscess point, and either open itself or I let out the pus by pricking through the skin. I am satisfied that they do better, and give the patient less trouble, when treated in this way. If an abscess is opened early, it is relieved for a time, but we usually are obliged to go through the same operation again. But if the pus is bound down by the periosteum, or by strong facia like the facia lata or the facia about the hand, or if it lay near important vessels or parts where it might do harm, I would open early. Even in whitlow, I have rarely seen any benefit result from an early opening, if made ever so freely, with the knife grating on the bone, as we have been taught to do, either in a permanent relief of pain or an early cure. I treated all my early cases in this way, but was almost uniformly disappointed in the result. The pain usually continued, and subsequent openings had to be made. The early application of four or five leeches may abort a whitlow; but if really commenced, poulticing till the proper time for opening, which is quite late, I think is the better course to pursue.

The old heroic treatment of carbuncle, by crucial incision, or the still more heroic plan proposed by some of completely enucleating the tumor, is condemned by many of our most eminent surgeons. The treatment they recommend is locally a simple poultice, kept warm and moist, together with tonics and nourishing diet to keep up the strength, and opiates to relieve pain. This palliative method of treatment, while it has less of blood and hero-

ism, is more in accordance with common sense and a rational system of surgery, and, I believe, is far better adapted to save life and relieve suffering than the old method.

The attention of the profession has been called for some time to a method of treatment of fractures of the shaft of the femur, the essential feature of which is extension by means of a weight exerting its power through a cord and pulley. Several papers were published on the subject, from 1824 to 1860, but they attracted but little notice from the profession. In 1861, Dr. Gurdon Buck read a paper before the New York Academy of Medicine, upon "A New Method of Treating Fractures of the Femur," in which he strongly advocated this mode of treatment. The subject at once created considerable interest. "Extension by weight" was employed extensively and successfully in army hospitals during the late war, and for some time has been the established method at the New York and Bellevue Hospitals. It is not, however, I think, as generally adopted by surgeons in private practice as it ought to be. The advantages of this method are, first, its simplicity and cheapness; second, the comfort which it secures the patient, compared with other methods; third, the maintenance of continuous and efficient extension, without producing intolerable pain, excoriations and tedious sores. All the articles necessary to be used in treating a case of fracture of the femur, with the exception of adhesive plaster, are to be found about any house, however destitute the circumstances of the family may be. I seldom use the long splint at all. Four short splints, applied over the seat of fracture, are all that are necessary. These may be confined by adhesive strips, or by elastic bands like suspender webbing, fitted with buckles. Sand bags for lateral support are sometimes of advantage. If there is decided tendency to eversion of the foot, it may be remedied by attaching a strip of adhesive plaster to the instep,

and tying it over the opposite side of the bed. The medium of extension is adhesive plaster, carried up each side of the limb, nearly to the point of fracture, and forming a loop under the foot for the attachment of the cord, to which, after passing over a pulley fixed at the foot of the bed, the weight is appended. The strips should be cut wide enough to reach three-fourths around the limb, and should be carefully covered in by a roller, to prevent slipping. A light weight should be applied at first, and gradually increased till it is just sufficient to overcome the contraction of the muscles and maintain the limb at its proper length. The amount of weight varies in different cases, though from eight to fifteen pounds are usually required for adults. From two to eight pounds are sufficient for children. Just what the weight consists of does not matter. In one of my earliest cases, which occurred in the country, in a very destitute family, on searching about the premises, I found an old teakettle which had long been useless for the purposes for which it was originally designed. By partially filling this with stones, I had a weight which answered the purpose admirably. Counter-extension, other than that effected by the weight of the body, aided by elevating the foot of the bed four or five inches, is seldom necessary.

The excoriations and painful sores which frequently arise from the use of the perineal band, even when the greatest precautions are used, are entirely avoided in this method of treatment, and the sufferings and discomfort of the patient are reduced to a minimum. The patient can move about much more freely than when using any other apparatus, without danger of causing displacement of the fragments. The extension remains constant and in one direction, whatever the position of the body. If the patient rises up, the limb is kept straight by the extending force, and it is impossible for the fragments to override

each other. If he turns over on his side or face, as I had one patient do, the cord twists, and not the bone, and the extension is maintained as efficiently as if the patient was on his back. If the patient slips down in bed, he can be instructed to draw himself up by laying hold of the head-board with his hands, and the force exerted by the weight still remains about the same. Too much stress cannot be placed upon the advantage of this *constancy* of the extending force. Most if not all the shortening, in a case of recent fracture, is due to muscular contraction, and a comparatively slight force, if continuous, will overcome this power. The great essential is to obtain a continuous force. Extension by means of screws, pinions and racks, is not continuous, when applied to the living organism. The former are fixed, the latter are constantly moving, so that at one time the power will be intense, and at another will not be exerted at all. Again, however carefully we may adjust the dressings, a few hours will suffice to loosen them to a certain extent, so that the extending force will cease to act. The weight, while it yields sufficiently to the movements and struggles against confinement which a living part is sure to make, exerts a constant, unfailing traction in the direction of the long axis of the limb, which is sure in the end to overcome muscular force without violent stretching of the part. The results obtained by this method of treatment are equal to, if not better than, those secured by any other. Any surgeon giving it a fair trial, I think, would hardly be willing to adopt any other plan. I regard it as being decidedly the best with which at present we are acquainted.

Clearer and more correct ideas of the pathological condition on which the deformities known as club foot depend have led to superior modes of treatment. For much of the advancement in this department of surgery, the profession is indebted to the labors and investigations of Sayers of New

York and Barwell of London. Spastic muscular contraction has been regarded as the cause producing the various forms of talipes, and the prevailing treatment is based upon this theory. The muscles in fault in any given case have been thought to be those whose contraction would draw the foot into the position it occupies. Experiment and observation have amply demonstrated that in a vast majority of the cases of congenital talipes, paralysis of the muscles of the side of the leg from which the foot is drawn constitutes the real pathological change. The opposite muscles, acting with only their normal force, produce an excessive effect, simply because the natural harmony of the tractile forces which control the motions of the foot has been destroyed by paralysis of a portion of the muscles. This is the condition which exists at birth. If the deformity is allowed to continue, complications result, among which are contraction and permanent shortening of faciæ and of the muscles which remain sound. These complications arise from various causes, which the length of this paper will not allow me to fully explain.

Another important result of talipes is atrophy of the foot and leg, and sometimes of the whole limb. The atrophy of the muscles is due to the fact that one set of muscles is paralyzed, and the sound ones gradually waste for want of the exercise necessary to keep them in proper condition. This same want of exercise will partly account for the arrest of the growth of the foot, but it mainly depends upon interference with the circulation of blood, both arterial and venous, in the part caused by malposition of its vessels, and the abnormal pressure upon them. If this view of the pathology of talipes is correct, it follows that the indications for treatment are not simply to restore the foot to its normal position, but include the improvement of the nutrition of the parts, and restoration of the paralyzed muscles to their natural tone and power. Permanently

fixing a limb in a stationary apparatus, effectually prevents the development of the power of paralyzed muscles, and if persevered in will cause the atrophy and fatty degeneration of sound ones. Motion is absolutely essential to the cure of talipes, and any mode of treatment by apparatus which allows no motion of the muscles and joints cannot be too strongly deprecated. The cure will be only temporary, and relapse will be almost sure to result as the sequence of such injudicious treatment. The club-foot shoes which have been in use, the plaster-paris, splints, and the adhesive plaster bands, all, to a greater or less extent, prevent motion, and are faulty in this respect. In using them, the foot is forced into position and firmly held there by non-elastic appliances. Barwell, of London, devised the use of elastic tubing to assist the paralyzed muscles in maintaining the foot in its proper position. This was an important step in the right direction. The constant traction of the elastic cord is sufficient to overcome the strongest muscles, provided they have not become contracted, or if faciæ has not become involved as the result of inflammatory action, while at the same time it permits and promotes constant movements of the muscles and joints, increasing thereby the circulation of blood in the same, and necessarily promoting their nutrition and development. The elastic rubber, or contracting force, should be applied in just such a degree of strength as shall be sufficient to overcome the distorting muscles, after the tension on them for a short time has produced fatigue, but not to such an extent as to prevent their contracting by an effort of the will. Mr. Barwell makes use of adhesive plaster, spread on Canton flannel, applied evenly to the foot, to fix the insertion of the artificial muscle; and a strip of tin or zinc, furnished with an eye of wire and secured to the leg by adhesive strips, serves for its origin. This plan of treatment has certain defects. The adhesive strips interfere

with the manipulations and frictions which are so essential to success; it is almost impossible to prevent them changing their position upon the foot; they soon wear out and require constant attention, and what is worse, they are apt to so irritate the skin, especially in very young children, as to necessitate, for a while, a cessation of treatment. To obviate these objections, Sayre, of New York, has devised a shoe on the general plan of the "Scarpas shoe," the essential difference being that his is furnished with a ball and socket joint opposite the medio-tarsal articulation, and the motive power is the elastic tubing, instead of the ordinary bands and straps which have been used. The shoe is secured accurately to the deformed foot, and then the elastic force is applied to just the extent and in the direction necessary to gradually draw the foot into its normal position.

Tenotomy is the natural therapeutical inference from the old pathological theory, and accordingly has become to be regarded as almost an indispensable element of treatment. Regarding paralysis as the original lesion, tenotomy should be resorted to only in those cases where, from neglect, the faciæ have become contracted or the muscles contractured. In order to determine whether either of these conditions exists, the patient should be anæsthetized and efforts be made to bring the foot into its normal position. If this can be done without rupturing any of the tissues, it is a case of simple contraction, and can be relieved without resorting to section; otherwise, tenotomy will be required. The application of electricity, frequent manipulations, frictions, shampooings, and light whippings of the paralyzed muscles, are necessary to restore them to their natural condition, and the shoe should be removed at least twice a day for this purpose. A serious trouble with most of the club-foot shoes is that the band which confines the ankle passes through the heel-cup too far back, so that it girdles

the foot and interferes seriously with the circulation of the blood in the same. This should be obviated by making the holes in the cup so far forward that the band shall press on the ankle only in front.

In œdema of the glottis, we have in iodine a curative agent always available, and, I believe, in a vast majority of cases, effectual, if used of sufficient strength. The tincture should be two or three times the ordinary strength, with a little Iod. Potass. added, to prevent decomposition when brought in contact with the fluids of the throat. It should be applied freely to the epiglottis and lips of the larynx. I have room for only one case for illustration. A short time since I was called to see a young lady, and found her in the following condition: The act of inspiration was performed with difficulty. Her throat was sore, and she complained greatly of fulness in the upper part of the larynx, and insisted that it must be filled with some extraneous substance or an unnatural growth. She was alarmed and restless, and her countenance bore the expression of great anxiety. All the symptoms indicated the presence of a grave disease. I suspected œdema of the glottis, and an examination confirmed my fears. On depressing the tongue the epiglottis, erect and swollen to thrice its natural size, could be plainly seen. By passing the finger into the throat the tumor was easily reached, as also the swollen lips of the larynx. I immediately applied strong Tinct. of Iodine. This caused quite severe smarting and some cough. The cough and smarting soon subsided, however, and in a short time the patient experienced marked relief of all the local symptoms. In about four hours I made a second application. The patient passed a comfortable night, and the case progressed satisfactorily to a favorable termination. There could be no mistake in the diagnosis of this case. The general symptoms, taken in connection with the positive evidence of sight and touch,

leave no room for doubt; and the prompt subsidence of the swelling, as demonstrated by examination, and of all the urgent local symptoms, shows the efficacy of the treatment.

The application of iodine is much easier and far less dangerous than scarification according to Dr. Buck's method, and I am fully convinced in a large majority of cases equally efficacious. When it does not succeed, I think its failure nearly always due to the fact that it it is not used of sufficient strength, or that the surgeon failed to recognize the disease till too late to be benefitted by it.

Allow me one word in closing in regard to the use of chloroform. Last year there were reported in the "Medical News and Library" twenty-seven deaths by this agent. A large number of cases undoubtedly occur which are not reported in the journals. A large proportion of these fatal cases were in operations for trivial diseases, and frequently after the inhalation of only a small quantity of chloroform, and before complete anæsthesia had taken place. The most patient investigation has failed to discover any law by which we can tell whether any given patient will bear this anæsthetic well or ill, or to suggest any means to prevent a fatal result in case of accident. In ether we have an agent perfectly safe, if used with ordinary care, though less pleasant for both the surgeon and patient. In view of these facts it seems the duty of surgeons to use the less dangerous agent rather than continue to use chloroform at such fearful risk to their patients as well as to their own reputation.

The following description of two interesting cases was handed me by Dr. Josiah Crosby:

Dr. Frank B. Hamilton says: "In no case of the shaft of a long bone have I found serious complications so frequent as in fractures of the shaft of the ulna." In twenty-three complicated cases, Dr. Hamilton gives three cases of compound fractures of the ulna, and seven simple fractures,

complicated with forward dislocation of the radius. I have seen two cases of fracture of the ulna, complicated with dislocation of the radius forward,—one compound and one simple. The first, a little Irish girl, was brought to my office in the evening by her parents, with the story that she had fallen on a pile of wood, and had driven a large splinter into her arm. I applied the forceps expecting to extract the splinter instantly, but was surprised to learn that I had compound fracture of the ulna, with the lower end of the upper fragment protruding half an inch. The arm was forcibly extended and everything apparently brought into good position. Splints were applied to the forearm, and the arm was flexed and laid in a sling. The child was so very ugly that very little could be done for her afterwards until the dressings were removed. Several weeks, perhaps months, afterwards her mother called to complain that her elbow was stiff. On examination I found the head of the radius dislocated forward—the hand could be carried to the top of the head with a slight inclination—about as is used in simple dislocation of the radius when the annular ligament is destroyed.

In this case the radius was probably brought into place by the extension necessary to reduce the fractured ulna, and after the child began to use the arm the radius was carried forward upon the humerus. Dr. Hamilton gives several cases where the dislocation was not discovered until the ulna was united.

The other case was that of a man forty years of age, who was caught in a machine in a cotton mill and fractured the ulna in its middle third, and dislocated the radius forward. I was called to assist the surgeon in attendance in the first dressing of this case. The kind of injury at first was not easily understood but by forcibly extending the arm the dislocated radius immediately came into place, and

of course the extension of the radius was sufficient to keep the fractured ulna in its proper position.

The arm was put upon an angular splint with short splints to the inside of the fore arm. I saw nothing more of this patient for months, but heard the cure was considered perfect. I was surprised to learn afterwards that the arm was perfectly useless. The angular splint was removed before the ulna was united, that passive motion might be early resorted to to prevent a stiff elbow, and the result was that the annular ligament being destroyed, the radius is dislocated and the ulna ununited, making a very bad arm.

I have reported these two cases because nothing is said of their complication in our books on surgery—Hamilton is the only man that refers to them—and to make my brethren more careful in investigating the cases. A moment's reflection in my case would have shown me that the fractured ulna conld not have been driven through the skin without fracture or dislocation of the radius, and a little reflection in the other case would have suggested to the surgeon that to secure a union of the ulna was of more importance than passive motion of the elbow joint.

MEDICAL HISTORY OF NEW HAMPSHIRE.

BY A. B. CROSBY, M. D.

FELLOWS OF THE NEW HAMPSHIRE MEDICAL SOCIETY:

The season that brings us together is one of harmonious beauty. Crowned is the forehead of Summer with a bloom of surpassing loveliness, meet for this "bridal of earth and sky." Wherever the eye may rest, upon the mountain, the valley, the woods, lakes, streams—everywhere is life—life in its prime of beauty, life for life's great end—fruition, a mighty harvest, a full garner for the winter of time.

To many of us come thoughts of other summers whose garlands have faded away. To many comes that sadness, not visible to describe, yet ever linked with thoughts of nature to an ear like ours, doomed to harken to "the still, sad music of humanity."

> "So build we up the being that we are,
> Thus deeply drinking in the soul of things."
> * * * * * * *
> "The clouds that gather round the setting sun
> Do take a sombre coloring, from an eye
> That hath kept watch o'er man's mortality;
> Another race hath been, and other palms are won."

As we gather around this altar consecrated to human suffering, and place our annual offering upon it, it is surely not unmeet at certain periods to invoke the "Angel of the

backward look." "Memory," says one, "is like the stern light of a vessel, that illuminates the path just passed, but throws no gleam on the future." Yet they tell us that history but repeats itself, and it has come to be an aphorism that there is no way of judging of the future but by the past.

The fathers of our art who sleep within

> "The low green tent
> Whose curtain never outward swings."

were once where we stand to-day. If we read their record we shall find how they worked hard, lived well and died poor. But above and beyond these prosaic facts we shall learn how theirs were lives of practical benevolence, devoted to the good of their kind. And in many of those long lives of ill-requited labor, of long suffering and well doing, we may discover deeds as heroic, all unsyllabled and unsung though they be, as any that the world perpetuates in marble and bronze. Such retrospects, while they do away with many illusions, can not but give us a more abiding faith and incite us to live like them, that our end may be like theirs.

I propose to recall something of the early medical history of New Hampshire, and as associated with it, something of the history of the Dartmouth Medical College. The progress of medical science in New Hampshire has been gradual. During the first hundred years after the settlement of the state, medicine had few exponents. And hence it is that no distinguished names in the profession during that period have come down to us. During the first fifty years of the second century in the history of the Granite State, a number of men arose distinguished for their medical knowledge and their zeal in advancing its most important interests. By more or less frequent intercourse with the mother country, by occasional immigration

from the schools of Europe, and by the importation of approved authors, these pioneers in our art did the most for themselves that their isolated position admitted. Though they had not the advantages of the medical establishments now so common in our country, they had all the aid that could be derived from the published works of the most eminent medical men of Europe. The medical works most generally in use at that time were those of Sydenham, Commentaries of Van Swietan, and the practical writings of Whytt, Mac Brooks, and Huxham. Physiology was represented by Haller; anatomy by Cowper, Douglas, Cheselden, Munroe and Winslow. The surgeries of Heister Sharp, LeDran and Pott, were the standards, while obstetrics were taught from the works of Smellie and Hunter.

The physician of the present day, who in a comfortable carriage drives rapidly over smooth roads or glides almost imperceptibly over the country in a railroad train, with all the approved appliances of our time, can form no adequate idea of the hardships that attended on the life of the physician in those early days. There were in the majority of instances no roads, and the luckless disciple of Æsculapius, on horseback, or, quite as frequently, on foot, was obliged to pick his uncertain way by the aid of spotted trees.

One of the earliest practitioners in my own neighborhood—who left a good name and an honorable record—was, tradition says, the owner of a pair of shoes. When he visited the poor his feet like those of his patient were habitually bare, the shoes being carefully concealed within the capacious saddle bags, in part for economy's sake, but quite as much lest the feelings of his humble friends should be wounded. But when he approached, at long intervals, a patrician bed, the long cherished shoes were donned, and in these galoshes of professional fortune, he was wont proudly to tread the sick room like any aristocrat, well shod.

It is related that on one of his professional trips he was

consulted by a young man from Connecticut, who, bred in comfort, had come into the new country and cleared a piece of land, but his poor bare feet were bruised, torn and bleeding. "I know what will cure you," said the benevolent doctor, and, opening his saddle-bags, he gave him the long treasured shoes; and then, lest, I fancy, his resolution should fail him, he turned his face resolutely homeward,

"Nor cast one longing, lingering look behind."

The doctor of those days was almost always obliged to attend to his own commissary department. Hasty-pudding was his principal reliance; although during the winter months he could occasionally indulge in the luxury of pea soup, frozen into cakes of a size suitable for transportation, and which a friendly fire would speedily render palatable.

There was little money in the country, and, in order to live, the physician inevitably became a farmer. Thus his patients could pay him in live stock, and when this had accumulated he was obliged to drive it to market, and so he became a drover. Those were indeed primitive times, yet that they were not incompatible with excellent professional attainments, is rendered evident by the honorable record of the period.

Previous to 1780 there was no medical organization nor association in the state. The student entered his name with some eminent practitioner of medicine, and studied as long as he fancied, or as long as his means lasted. During the first two years he usually lived at home, going to recite at intervals of a week or a month, according to his convenience. The third year was generally spent in riding with some physician to witness the treatment of disease. There was no fixed standard of acquirements for admission into the profession.

Dissection of the human body was almost wholly unknown, and only the marked men in the profession pos-

sessed a skeleton. Nevertheless there was here and there a worthy disciple of the great Vesalius who dared public opinion sufficiently to attempt to gain a knowledge of anatomy by dissections of the human body. The first execution for a capital offence in my own county took place at Haverhill, the condemned man being a negro. The gallows was erected in an open field, and a large concourse assembled to witness the melancholy spectacle. Dr. McKinstry, of Newbury, Vt., secured the body, which was rapidly carried to a cabin on the great Ox-Bow Meadow. All the neighboring physicians were invited to be present, and were requested to bring any dissecting instrument they might deem of use. Tradition says that one brought a hand-saw, another an axe, still another a butcher's cleaver, and a fourth came armed with a large carving-knife and fork.

Meantime popular excitement at this proposed sacrilege had reached a high pitch, and it seemed for a time as though all the instruments of these pseudo anatomists must be used in self defence. A guard, however, with firearms, was stationed around the locality, and, thus protected, the dissection began. The great point to be settled was what should be done first. After long and earnest consultation, it was unanimously decided that the subject should first be skinned, and skinned it accordingly was, with neatness and dispatch. The cuticle of this unfortunate Ethiop was subsequently tanned and cut up into small pieces, as souvenirs of the occasion. Tradition says, with how much truth I know not, that an enthusiastic but impudent student cut off the ears and sent them in a letter to one of the professors in the academical department of Dartmouth College, whom he did not particularly admire.

How far these dissections were carried, or how long they were continued, I am not informed. There is, however, still living, at North Haverhill, Dr. McNab, a venerable medical

man, who was present and aided in this early effort to establish a "chair of anatomy."

At the period of which I write, and long afterwards, the popular prejudice against dissections of the human body was so great that they could only be practiced by stealth, and the material could be obtained in no legitimate way. If the venerable walls of our State Medical College *could* speak, or if the veterans among its professors *would* speak, they could, I fancy,

"A tale unfold."

But those walls are dumb, and none of my respected colleagues have volunteered to enlighten us, and, therefore, I imagine that they believe with our Æsculapian poet that there are some things that are better

"Hushed up among one's friends."

Fortunately this unjustifiable popular prejudice no longer exists. Modern legislators, wiser than their fathers, have rendered it easy for the medical student to legitimately pursue the study of practical anatomy without wounding the sensibilities of the living and without desecrating the graves of the dead. The act passed by the New Hampshire Legislature, at its last session, and on the petition of this society, is creditable to the intelligence of that body, while it is of great advantage to the profession.

Having satisfied his preceptor, the young candidate for medical honors left with a certificate of his qualifications in the different departments. If he was a proficient in surgery, it was mentioned that he had enjoyed the rare privilege of studying the human skeleton.

In the early days of medicine in our country we copied the European fashion, where the different branches were practiced by different men. This proved to be wholly impracticable in our country towns, where there were scarcely

inhabitants enough to support one professional man. It was no uncommon circumstance for a physician and a surgeon to associate in business, each becoming the pupil of the other, while each practiced in his original vocation. My grandfather, Dr. Asa Crosby, became associated in this way with the original Dr. Kittredge, who was the founder of a long family dynasty of physicians in New Hampshire. Indeed, the name of Kittredge became so well and favorably known as the representative of medical skill that some physicians applied to the legislature for a change of their names, believing that, in popular estimation at least, they would thus acquire something of the hereditary prestige.

The practice of obstetrics in these early days was almost wholly in the hands of women. But as most of these female practitioners were ignorant of the first principles of the art, they frequently did a great deal of mischief. Not content to be the handmaids of Nature, they adopted many absurd prejudices and superstitions that proved as injurious to their patients as they were unnecessary. The abuses in this department became at length so glaring that about the beginning of the present century this branch began to be practiced by the physicians, and a little later the custom became universal. More recently the tide seems flowing in the opposite direction, especially in the larger towns and cities. It is a noticeable fact, however, that the female physicians of the present day have, as a rule, enjoyed the benefit of systematic medical instruction.

Previously to, and about 1790, the leading physicians in the state felt the necessity of some medical organization for personal improvement and protection. In 1791 the project assumed a definite shape in the formation of the New Hampshire Medical Society, on the petition of Josiah Bartlett and eighteen others, all regular practitioners of medicine. The legislature, by the terms of the charter, vested in these gentlemen and their successors all the rights, im-

munities and privileges pertaining to corporate bodies. The society was at first limited to seventy members, but at the session of 1816 a supplementary act was passed, extending the number to two hundred. The society, through its censors, was empowered to examine candidates for medical honors, and, if found worthy, to issue to them a license to practice.

It is evident that the founders of this society were in earnest, and that they labored to improve themselves and elevate the profession. Dr. Bartlett gave one hundred and fifty volumes to the society, and during the first twenty years about two hundred volumes were added by purchase. It is to be regretted that these books have all been spirited away. Dr. W. D. Buck, in an admirable oration, delivered before this society at its last annual meeting, thus writes of its early history: "Papers were read and discussed, orations delivered, by such men as Nathan Smith, Mussey, Perkins, Twitchell, Asa Crosby, Ramsey and others, ordered to be placed on file, and sometimes to be printed. Members were continually disciplined for consulting with irregulars, for presuming to question the utility, publicly, of any orthodox remedy, even for the slightest ethical obliquity; were obliged to pay their assessments or be sued, and poor Peter Green was driven to the necessity of shoving up his library on two occasions, for arrearages. A committee was appointed, who selected his best books, and added them to the library, whether or not (to use a legal phrase) by a *mesne process*, I don't know. The scanty records of the doings of this society for the first thirty or forty years, show those men to have been terribly in earnest, and the record is more complete during the first than the second thirty years."

District societies were made auxiliary to the state society, and the books of the latter were loaned from time to time to the former. The district societies are, I believe,

all dead, and I fear they were at least partially responsible for the loss of our library. "But," as Dr. Buck well says, "the loss of our library is not so great a misfortune as the loss of every scrap of the transactions (so far as I know) of the first sixty-four years; the years of the experience of such men as Smith, Perkins, Mussey, Twitchell, &c. The papers read, and the discussions held, would be to us invaluable, and it is a shame that they have been lost." The transactions of the society have been published during the last sixteen years,

This admirable organization has continued in active operation up to the present time, and the good it has done, in raising the standard of the profession, is incalculable. The published list of its members includes the names of many celebrated physicians, whose celebrity has been not only state but national.

Soon after the inception of the enterprise, the impression became general that the state society, excellent as it was both in design and execution, did not fully answer the medical wants of New Hampshire. There were those who felt that the young men of the state should have systematic didactic instruction, and that this could be accomplished only by the foundation of a regularly chartered medical college. This plan was eventually reduced to a demonstration through the energy and talents of one man. It is with profound veneration that I write the name of Nathan Smith. Himself a member of the society, I know not but he gained inspiration and encouragement for the enterprise from his associates here. At the annual meeting of the Board of Trustees of Dartmouth College, in August, 1796, Mr. Nathan Smith, who was then a Bachelor of Medicine, not having received the degree of M. D., made an application to the board, asking their encouragement and approbation of a plan he had devised to establish a Professorship of the Theory and Practice of Medicine in connec-

tion with Dartmouth College. After considerable discussion, the board voted to postpone their final action upon the proposition for a year, but in the meantime a resolution was passed complimentary to the character and energy of Mr. Smith, and promising such encouragement and assistance in the future as the plan might merit and the circumstances of the college admit.

The records of the college are extremely barren of details respecting the preliminary steps towards a medical establishment, and there are no means of knowing what the action of the board was the following year. It is evident, however, that some measures must have been taken in relation to the future welfare of the school, for in the year 1798 we find that "the fee for conferring the degree of Bachelor of Medicine *pro meritis* be twenty dollars." The honorary degree of Master of Arts was the same year conferred on Mr. Smith, while it remained for a subsequent board to discover that his professional attainments merited the rank and title of Doctor.

Later in the same session it was voted "That a professor be appointed, whose duty it shall be to deliver public lectures upon Anatomy, Surgery, Chemistry, Materia Medica, and the Theory and Practice of Physic, and that said professor be entitled to receive payment for instruction in those branches, as hereafter mentioned, as compensation for his services in that office." Mr. Smith was at once chosen to fulfil the laborious, and to us almost incredible duties of this professorship, while the compensation alluded to was for a long time held in abeyance. It may be that the trustees thought that to so self-sacrificing a man, reward of conscience would be superior to any pecuniary emolument. We also find that in this year the board adopted the following code of Medical Statutes:

1. Lectures shall begin on the first day of October, annually, and continue ten weeks, during which the profes-

sor shall deliver three lectures daily, Saturday and Sunday excepted.

2. In the lectures on the theory and practice of Physic, shall be explained the nature of diseases and method of cure.

3. The lectures on Chemistry and Materia Medica shall be accompanied by actual experiments, tending to explain and demonstrate the principles of chemistry, and an exhibition shall be made of the principal medicines used in curing disease, with an explanation of their medicinal qualities, and effect on the human body.

4. In the lectures on Anatomy and Surgery, shall be demonstrated the parts of the human body by dissecting a recent subject, *if such subject can be legally obtained;* otherwise, by exhibiting anatomical preparations, which shall be attended by the performance of the principal capital operations in surgery.

5. The medical professor shall be entitled to the use of the college library and apparatus gratis.

6. The medical students shall be entitled to the use of the college library under the discretionary restrictions of the President.

7. Medical students shall be subject to the same rules of morality and decorum as Bachelors in Art residing at the college.

8. No graduate of any college shall be admitted to an examination for the degree of Bachelor of Medicine, unless he shall have studied two full years with some respectable physician or surgeon, and attended two full courses of lectures at some university.

9. No person *not* a graduate shall be admitted to such an examination unless he shall have studied *three* full years, as above, attended two full courses of lectures, and shall, upon a preparatory examination before the President and professors, be able to parse the English and Latin lan-

guages, to construe Virgil and Cicero's orations, to possess a good knowledge of common arithmetic, geometry, geography and natural and moral philosophy.

10. Examinations shall be holden in public before the executive authority of the college, by the medical professor, and candidates shall read and defend a dissertation, etc.

11. Every person receiving a degree in medicine shall cause his thesis to be printed, and sixteen copies thereof to be delivered to the President, for the use of the college and trustees.

12. The fee for attending a full course of lectures shall be fifty dollars ; that is, for anatomy and surgery, twenty-five dollars ; for chemistry and materia medica, fifteen dollars, and for theory and practice, ten dollars.

13. The members of the two senior classes in college may attend the medical lectures by paying twenty dollars for the full course.

Besides these statutes, the trustees voted that Mr. Smith might employ assistance in any of his departments, at *his own expense*, and that one half part of the fees for conferring the degree of Bachelor of Medicine be his perquisite, and the other half a perquisite to the president of the college.

The first course of lectures was delivered in the fall of 1797, although Mr. Smith was not elected to his professorship until after his return from Europe, the following year. In the year 1798, two young men were graduated with the degree of Bachelor of Medicine. The next year the trustees voted to appropriate the northeast corner room in Dartmouth Hall to the use of Professor Smith, and it was repaired and furnished for that purpose. The room was a small one, scarcely as large as a common parlor, but still it served for a lecture hall, dissecting room, chemical laboratory and library, for several years, when another room adjoining was appropriated to the same purpose.

In 1801, the degree of Doctor of Medicine was conferred upon Mr. Smith, and a committee was appointed to confer with him in relation to a salary, and concerning some proposed alterations in the Medical Department. It would seem that corporations as well as individuals are addicted to procrastination, for that committee, as well as several others subsequently appointed for the same purpose, never reported. A grant of fifty dollars per annum was voted him, upon which he was to allow a debt he owed the college for money loaned. I fancy that this latter was furnished him in order to enable him to visit Europe.

The trustees about this time made a change in the term of study required for a degree. The new statute fixed the period of three years for academical graduates, and five years for non-graduates.

The evidence is pretty strong that the undergraduates who attended the lectures paid for the privilege rather reluctantly, for, by the request of Dr. Smith, it was voted that the treasurer collect, as part of the regular college bills, all lecture fees due from college students.

In 1802 the salary of the Professor of Medicine was fixed at fifty dollars, and an additional grant of fifty dollars, yearly, was voted for contingent expenses. These emoluments were not, however, ample enough to induce Dr. Smith to remain. Accordingly, in 1803, the board voted a yearly sum of one hundred dollars for the purpose of accommodating him with a house, and added, as an additional bonus, the use of ten acres of land as a pasture, both to be continued during his residence in Hanover and his continuance in the professorship. Notwithstanding these tempting allurements of house-rent and pasturage, Dr. Smith still indicated his intention of leaving. Thus stimulated, the board, in 1804, voted to raise his salary to two hundred dollars, at which sum it remained a fixture.

Through the politeness of Professor Albert Smith, who

obtained the facts at no little trouble and expense, I am enabled to give the official records of the New Hampshire Legislature bearing on this subject; from which we learn that the Senate and House journals, November session, 1802, and also of 1806, are wanting. We find, however, the following official records:

SENATE, June 10, 1803.

A Resolve, That Dr. Nathan Smith have and receive out of the treasury, in his capacity as professor of anatomy, surgery and chemistry, six hundred dollars for the purpose of purchasing the apparatus prayed for, the apparatus to remain the property of the state for the use of said institution, was brought up, read and concurred. Presented and approved.

HOUSE, June 6, 1807.

Voted, That Messrs. . . . . be a committee to consider the petition of Dr. Nathan Smith and others, for and in behalf of the New Hampshire Medical Institution, and report thereon.

HOUSE, June 10, 1807.

Committee reported that the petitioners have leave to bring in a bill. Report accepted.

HOUSE, June 13, 1809.

Voted, That Messrs. Evans, Harper, Woodbury, Cady and S. P. Webster, with such as the Senate may join, be a committee to consider the petition of Dr. Nathan Smith, praying for assistance, that he may be enabled to erect buildings near Dartmouth College, for the use of the medical school, and report thereon.

(Journal of June 14th, 1809, torn out.)

HOUSE, June 16, 1809.

Voted, That Messrs. Hough, Kimball and Olcutt, be a

committee to take into consideration a bill making a grant of six thousand dollars to Dr. Nathan Smith, of Hanover, for certain purposes therein mentioned, and report the probable expense of erecting the buildings therein mentioned.

June 17. The said committee reported "That three thousand, four hundred and fifty dollars will be the probable expense of erecting and completing the proposed buildings."

Again: *Voted*, That Messrs. Meserve, Hough and Parrot, be a committee to take into consideration a bill making a grant of six thousand dollars to Dr. Nathan Smith, and report such alterations and amendments as they shall judge necessary.

HOUSE, June 10, 1809.

On reading the bill entitled "An Act appropriating three thousand, four hundred and fifty dollars for certain purposes therein mentioned, and on the question, "Shall the first section pass?" which is in the following words:

SECTION 1. Be it enacted by the Senate and House of Representatives in General Court convened: That the sum of three thousand, four hundred and fifty dollars be, and the same hereby is, appropriated for the purpose of erecting a building of brick, or stone, for a medical school, sixty-five feet in length, thirty-two feet in width, and two stories in height; provided the said Nathan Smith, before the said money, or any part thereof, be paid out of the treasury, convey to the state of New Hampshire, by a good and valid title, one half acre of land, contiguous to Dartmouth College, whereon to erect said building; and provided the said Nathan assigns to the state aforesaid, such parts of the anatomical museum, and chemical apparatus, as are his private property."

The yeas and nays being called thereon, stood, yeas, 102, nays 59, so the section passed.

HOUSE, June 9, 1812.

Voted, That the petition of Dr. Nathan Smith, praying for legislative aid, be referred to the committee to whom was referred so much of His Excellency's communication as relates to literature and science, and that they report thereon.

JUNE SESSION,
Tuesday, June 16, 1812.

House met according to adjournment.

The committee on the petition of Dr. Nathan Smith, reported the following statement of facts: "The legislature in 1809, appropriated the sum of three thousand, four hundred and fifty dollars for the purpose of erecting, at Hanover, a building of brick, or stone, for a medical school, to be sxity-five feet in length, thirty-two feet in width, and two stories in height, on condition that Dr. Smith, before said money, or any part thereof, be paid out of the treasury, should convey to the state of New Hampshire, by a good and valid title, one half acre of land contiguous to Dartmouth College, whereon to erect said building, and also to assign to said State such parts of the anatomical museum and chemical apparatus as were his private property.

In compliance with this condition, Dr. Smith has legally conveyed one acre, instead of half an acre, of land, and assigned said anatomical and chemical apparatus to the state. The anatomical and chemical apparatus, so assigned, are at a moderate estimate, of the value of one thousand five hundred dollars.

The committee appointed to superintend the erection of the building, in the act of 1809, to render it convenient and useful for the purposes intended, concluded to add ten feet to the length, and, to accommodate more students, to di-

vide the two wings into three stories ; this was done, however, without increasing the heighth of the walls. The alteration from the first plan appears to have been necessary. The full sum of three thousand, four hundred and fifty dollars has been appropriated toward the erection and completion of the building, under the direction of the committee, who received compensation for their trouble of Dr. Smith. But the amount of the appropriation was found to be insufficient to defray the expenses of finishing the building in a plain and suitable manner, in a sum of one thousand, two hundred and seventeen dollars and fourteen cents. This sum Dr. Smith has paid, or secured to be paid to the contractors.

The building, and anatomical and chemical apparatus, will be exclusively the property of the state, on the death or removal. of Dr. Smith from the medical school.

The committee would further state, that ten years preceding the year 1798, Dr. Smith spent much time, and a very considerable sum of money, acquired by his practice, in attaining a more perfect knowledge of his profession and in procuring a library and other apparatus, in order to promote medical science in the state, especially knowledge in surgery; that Dr. Smith, in 1798, was appointed Professor of Medicine at Dartmouth College, and then commenced a course of public instruction in all the branches of medical science generally taught in medical schools, with a library and other apparatus, procured at his own expense, and without any salary from the college. From 1798 to 1810, Dr. Smith supported the medical school by his own indefatigable exertions, in teaching all the branches of medicine himself, except in two instances, when he procured, at his own expense, assistant instructors. During the last twelve years, through his liberal management, the advantages of medical instruction have been greatly improved, and the number of those who attended the medical school increased.

At present, the medical institution at Hanover affords to students of medicine all the means of a correct and useful education. The number of students for the last three or four years, we believe to have been greater than at any medical school in the United States, that at Philadelphia excepted. The reputation of the school is deservedly high. Its connection with Dartmouth College increases the usefulness and celebrity of that literary institution. On the whole, we do not hesitate to declare that this medical school is worthy the patronage of the legislature.

Under these circumstances, the committeee submit to the consideration of the legislature, whether it would not be proper to allow Dr. Smith the sum of one thousand, two hundred and seventeen dollars and fourteen cents.

LEVI JACKSON,
For the Committee.

Yeas 58, nays 96. So the motion did not prevail.

We find nothing of interest in the records of the college proper from 1804 until 1810, when Dr. Cyrus Perkins, (created a doctor upon that occasion), was elected Professor of Anatomy. Some trouble having occurred about this time between the college officers and the medical students, the following articles were added to the laws:

1. That each person, previous to becoming a member of the Medical Institution, shall be required to give satisfactory evidence that he possesses a good moral character.

2. That it be required of medical students that they conduct themselves respectfully towards the executive officers of the college, and if any of them should be guilty of immoral or ungentlemanly conduct, the executive may expel them, and no professor shall receive or continue to receive as his private pupil, any such expelled person, or recommend him to any other medical man or institution.

3. That the executive officers of the college be, and hereby are authorized to visit the rooms of the medical students whenever they think proper.

In the year 1812, some important changes were made in the economy of the institution. Up to this time the degree of Bachelor of Medicine only was conferred upon recent graduates, while the degree of M: D. was only allowed in course three years after graduation. This was now changed, and the degree of Doctor of Medicine was conferred upon all medical graduates. The term of study was again changed and fixed at the present standard. Another of the new regulations, and perhaps the least agreeable one to the students, compelled candidates to read their theses publicly in the chapel.

The Faculty was also strengthened by the appointment of Rufus Graves, Esq., as lecturer on chemistry, making this department, for the first time, a separate branch. Col. Graves, although a good lecturer, was an unsuccessful manipulator, which caused his dismission in 1815, three years later. During this same year we find that Mr Reuben D. Mussey, a name thoroughly identified with the success of the school, and with medical progress in New Hampshire, was created a Doctor of Medicine.

In 1814, Dr. Smith, having been absent for a year, it was voted that the salary and emoluments pertaining to the chair of medicine, be paid to Dr. Perkins, and at an adjourned meeting the resignation of Dr. Smith was received and accepted. The Board then proceeded to elect Dr. Mussey Professor of Theory and Practice and Materia Medica. In 1816, Dr. Perkins was excused from lecturing on Surgery, and Obstetrics was added to his chair, instead, while Dr. Mussey assumed the department of Chemistry, in addition to his other labors. In the meanwhile Dr. Smith was re-elected Professor of Surgery, but declining to

accept, Dr. Muzzey added a course of lectures on this branch to his already laborious duties. The following year he was somewhat relieved by the choice of Dr. James F. Dana, as lecturer on Chemistry, which office he continued to hold until 1820, when he was elected to a full professorship. In August, 1819, Dr. Perkins resigned his chair, which the trustees attempted to fill by the election of the lamented Dr. Twitchell, of Keene. To the disappointment of all, Dr. T. declined the proffered honor.

The well known university troubles, which occurred in the triad prior to 1820, gave the trustees in that year plenty of occupation. The first vote of the Board at this meeting was one in which they accepted the proffered fraternization of the New Hampshire Medical Society, by sending delegates to attend the annual examinations. The statutes were also altered very materially. By these amendments the Medical Faculty were allowed the sole control of the discipline, etc., of their department. Students coming to attend lectures were not required to give evidence of the possession of a good moral character, as under the old laws. The invidious have alleged that this latter amendment enabled a larger number to avail themselves of the advantages of a medical education than might otherwise do so. The requirements for graduation were at the same time lessened, being now limited to a knowledge of Latin and Natural and Experimental Philosophy, while the examinations were to be private, instead of public, as heretofore.

It was determined that the Medical Faculty should henceforth consist of:

1. The President of the College.
2. A Professor of Surgery, Obstetrics and Medical Jurisprudence.
3. A Professor of Theory and Practice and Materia Medica.

4. A Professor of Chemistry and Mineralogy.
5. A professor of Anatomy and Physiology.

Dr. Mussey was elected to the first of the chairs; Dr. Daniel Oliver, of Salem, Mass., to the second; Dr. James F. Dana, to the third, and Dr. Usher Parsons to the fourth. Dr. Parsons remained but two years, when Dr. Mussey was appointed Professor of Anatomy, in addition to his other branches. No farther change occurred until 1826, when Dr. Dana resigned the chair of Chemistry which was filled by the election of Professor Hale, who continued to lecture until 1835, when his connection with the college ceased. The following year Dr. John Delamater was chosen Professor of the Theory and Practice of Physic, and the present incumbent Professor of Chemistry, while in 1838 a great change was made in the Medical Faculty by the resignation of all the lecturers except Professor Hubbard. By the election of the trustees, the Faculty now consisted of Elisha Bartlett, Oliver Wendell Holmes, John Delamater, Oliver Payson Hubbard, Dixi Crosby, and Stephen W. Williams. Dr. Bartlett resigned in 1840, and was succeeded by Dr. Joseph Roby. Dr. Delamater also left, and Dr. Holmes tendered his resignation. The next year, 1841, Dr. Phelps and Dr. Peaslee commenced their long and useful connection with the school. No farther change was made until 1849, when Dr. Roby resigned and Dr. Albert Smith was elected. In 1867 Dixi Crosby resigned the chair of Surgery, and A. B. Crosby, who had served as Adjunct Professor of Surgery since 1862, was elected to fill the vacancy. In 1869, Dr. Peaslee, having resigned the chair of Anatomy and Physiology, was transferred to a new chair of the Diseases of Women, while Lyman Bartlett How, M. D., was elected to fill the vacancy. And finally Dr. Dixi Crosby has sent in his resignation of the chair of Obstetrics, to take effect at the ensuing commencement

(1870), thus terminating an active connection of thirty-two years with the school.*

Such, in brief, is the record of the days and the men that have gone before. There is neither time nor occasion for extended remarks on the lives and characters of the men whose names I have recorded as having been connected with this college. Yet of some of them the proprieties of the occasion demand a brief mention.

Nathan Smith, the founder of the school, was without dispute a great man. Incited to enter the profession by witnessing an amputation in Vermont, he devoted himself to acquiring the best preliminary education his means afforded, and eventually entered his profession full of zeal and ambition, resolved to act no secondary part in his chosen vocation. To found a medical college at Dartmouth was the chief desire of his early manhood. Regardless of his own pecuniary interests, he borrowed money to buy the necessary apparatus and appliances with which to commence his course of instruction. When the increasing demands of the institution required a building for its accommodation, it was through his personal efforts that it was secured. The college was probably erected in the year 1811. The means were raised and the project carried out by Dr. Smith, who, himself, on his own recognizance, furnished a large part of the money. A part, as shown by the records, was also secured by the same gentleman from the Legislature of New Hampshire, a body, I am ashamed to say, which has only at the rarest intervals evinced generosity or even tolerance towards the only university within the state limits.

Dr. Smith was a man of genius. I hazard nothing in saying that he was fifty years in advance of his profession.

* The trustees accepted the resignation of Dr. Crosby, but in recognition of his long and distinguished services in connection with the college, voted to appoint him Professor Emeritus of Surgery.

He was one of those characters who was not only an observing man, but, rarest of all, he was a *good observer*. Nothing escaped him, and when he had seized on all the salient points of a given subject, he astounded his listeners with the full, symmetrical character of his generalizations.

As instances in point, let me briefly advert to one or two illustrations. When Dr. Smith entered the profession, everything in the way of continued fever in the valley of the Connecticut was termed typhus. Dr. S. soon became convinced that while true typhus did prevail, there was yet a continued fever essentially different in its character, and so he came to differentiate between typhus and typhoid. Noting carefully the symptoms in these cases, making autopsies whenever a chance occurred, and observing the morbid changes thus revealed, he soon found himself master of the situation. Then he wrote an unpretending little tract, in which he embodied his observations and his inferences. This brochure was undoubtedly the first comprehensive description of typhoid fever ever written, and covered in a wonderfully exhaustive way not only the clinical history, but the pathology, of this most interesting disease. This noble record of results, obtained by observations, made mainly at Norwich, Vermont, and Cornish, New Hampshire, was almost the "*Vox Clamantis in deserto.*"

Many years later, in the great hospitals of Paris, Louis made and published his own observations in regard to the same disease, and the whole medical world rang with plaudits of admiration at his genius and learning. But in the modest little tract of Nathan Smith, the gist and germ of all the magnificent discoveries of Louis are anticipated. And thus it is again demonstrated that men of genius are confined to no age and to no country, but whether in the wilds of New Hampshire or in the world's gayest capital, they form a fraternity as cosmopolitan as useful.

I have recently learned an incident that still further illustrates Dr. Smith's sagacity. While residing in Cornish he had a friend who was a sea captain, and who, on his return from foreign voyages, was wont to relate to him whatever of interest in a medical way he might have chanced to observe while abroad. On one occasion he told Dr. Smith that on his previous voyage one of the sailors dislocated his hip. There being no surgeon on board, the captain tried but in vain to reduce it. The man was accordingly placed in a hammock with the dislocation unreduced. During a great storm the sufferer was thrown from the hammock to the floor, striking violently on the knee of the affected side. On examination, it was found that in the fall the hip had some how been set. This interested Dr. Smith wonderfully, and he questioned the narrator again and again as to the exact position of the thigh, the knee and the leg, at the time of the fall.

From this apparently insignificant circumstance, Dr. Smith eventually educed and reduced to successful practice the method of reducing dislocations by the manœuvre, a system as useful as it is simple, and as scientific as the principle of flexion and leverage on which it depends. Had this incident been related to a stupid man, he would have seen nothing in it, or to a sceptic, and he would have discredited the whole account, but to a man of genius it furnished a clue by which another of Nature's labyrinths was traced out. This system is by far the best ever devised, simplifying and rendering easy the work of the surgeon, while reducing human suffering to its minimum.

I do not propose to recall to your minds how much he did for medicine and surgery; that were the work of days, not a single hour. But one anecdote I shall venture to relate, out of many, as illustrating a somewhat amusing trait in his character. When deeply interested in an operation, he was wont to soliloquize or think aloud, without any

consciousness that he was giving utterance to his thoughts. On one occasion, at Cornish, he was operating on a man for strangulated hernia, the bed being surrounded by anxious friends. On cutting through the abdominal wall he discovered a peculiar odor, and immediately his usual soliloquy began, as follows: "What! what! have I cut a gut? I have—I have cut a gut! They might as well make his coffin now as ever." After this little bit of self communion, he completed the operation with a perfectly unmoved face, utterly oblivious that he had said anything. He then called the friends into another room, and with a grave face announced to them that the case was a bad one, and that he was a little afraid that the man might die.

Time would fail me to relate the well authenticated traditions of his skill, his benevolence and his practical greatness. But almost from the inception of his professional life until he left for New Haven, he was the acknowledged leader of his profession in the state, and his reputation came soon to cover the whole of New England. He was the father of several sons, who have since been distinguished in the same profession. The venerable Professor N. R. Smith, of Baltimore, is the eldest, and perhaps the most celebrated of the survivors.

It was only a short time since I asked a venerable man in my own neighborhood, whose hair has been silvered by more than eighty winters, what manner of man Nathan Smith was. He thought a moment, and then, with a moistened eye and a slight quiver of the lip, he replied: "He was good to the poor." For more than forty years the grass has grown on the grave of Nathan Smith, but there are living hearts that still beat his requiem, and voices that still repeat this best of epitaphs, "He was good to the poor."

Early associated with this excellent man was Dr. Cyrus Perkins. This gentleman was a man of large attainments,

and won an enviable reputation as a medical man of skill and learning. In the troubles that sprang up between Dartmouth College and the University, Dr. Perkins sympathized with the latter. After the splendid filial labors of Daniel Webster had, in the Supreme Court at Washington, insured victory and stability to the college, Professor Perkins resigned and removed to the city of New York, where he soon attained a lucrative practice. He died a few years since at Staten Island, full of years and full of honor.

Four years ago to-day, June 21, 1866, there died in the city of Boston, at an advanced age, a gentleman whose reputation as a physician and surgeon has been hardly second to that of any man in America. Although bed-ridden for some months before his death, his mind was unimpaired and the force of his will was unabated. In gazing on him one could exclaim with truth, as did Bayard Taylor when he saw the venerable Humboldt, it is "not a ruin, but a pyramid." I need only write the name of Reuben D. Mussey to recall to the friends of medicine in New Hampshie the memory of an eminent Christian, a learned physician, a world-renowned surgeon, the best labors of whose most creditable life were devoted to the good of our state college and commonwealth. Time is wanting to give even the briefest resume of his pure and most useful life; nor is this so essential here, since the state society, at its last meeting, took such action in the premises as to insure a suitable record of his life and character.

I cannot forbear to recall for an instant the name of Professor Hale, who, after serving the college in the chair of Chemistry for a few years, lost his connection with the institution in a manner by no means creditable to the trustees. Professor Hale was an Episcopalian, and was wont to hold the service of the church of England at his own house, for the benefit of whoever might choose to come.

This course was obnoxious to the college fathers, who were at the time strongly sectarian. The board determined on his removal, but as it was found that it could not be legally accomplished under the college charter, the Alexandrian method of treating this heretical knot was adopted. A vote was passed abolishing the Professorship of Chemistry. Subsequently, as President of Geneva College, Dr. Hale passed a most useful life, and only within a few years has crossed the "insuperable threshold."

I should hesitate to recall an event so discreditable to the past history of the college, were it not that in these latter days more liberal counsels have prevailed, and the utmost latitude of opinion, as is consistent with the true spirit and intent of a university, has come to be tolerated and encouraged. Whatever may have been the derelictions of Dartmouth in the past, I am proud to say that her spirit is liberal and catholic now.

Any contribution to the medical history of New Hampshire would be imperfect which should ignore the name of Amos Twitchell. Born in 1781, and able to attain only the limited advantages of the medical education common to his period, he developed an astonishing genius for surgery, and both in this branch and in the department of practice, he was for a long term of years *primus inter primos* among the distinguished medical men of New England. I consider the fact well established that Dr. Twitchell was the pioneer in applying a ligature to the carotid artery. Sir Astley Cooper has, I think, the credit of having first applied a ligature to this vessel, but Dr. Twitchell antedated Sir Astley's operation six months. Dr. Twitchell never wrote anything, but he achieved the most brilliant triumphs in his profession, and we must forever deplore that he has left no written record from which we might have derived so much in the way of valuable infor-

mation and instruction. Dr. Twitchell died at Keene, May 26, 1850, universally admired, respected and beloved. The traditions of his playful humor and his graceful wit are still cherished by multitudes that never knew him in life. The Cheshire House, which was the scene of many of his most brilliant *mots* and sparkling *repartees*, still seems hallowed by his presence, as if his genial spirit hovered it, the Eidolon of the place. Fortunately the land that knew him can still cherish his name and memory in the person of his accomplished nephew and successor, Dr. George B. Twitchell.

I had designed to say something of Dr. Daniel Oliver, who was a gentleman of greater erudition, more liberal culture and greater personal accomplishment, than any gentleman who has been connected with the past years of the college. It is doubtful whether any medical college in the country could produce his equal in these respects. I should delight to draw a picture of Joseph Roby: grave, yet filled with inimitable humor; learned, yet childlike; lofty and sour to them that loved him not, but to those men that sought him, sweet as summer. Never immersed in the cares and perplexities of a professional practice, he cultivated an æsthetic taste for medicine, and as a teacher carried with him the unbounded enthusiasm of his classes. I knew him only as a boy, but I well remember that when he lectured the hall always rang and rang again with applause. He, too, has crossed the dark river and rests from his labors. But the waning hour warns me that I have no longer an opportunity to discourse of the remainder of our honored dead (which I might do with profit), nor to dwell upon the living, which the proprieties of the occasion would not admit.

I cannot but regret that these facts in the medical history of New Hampshire, which, irrelevant and discursive

as they are, have been obtained with no inconsiderable amount of difficulty, should have so little of comeliness and order. I can only hope that the facts which I this day place upon record may prove useful to some one in the future who has more time and a greater aptitude for such labor and research.

And so I have done. These reminiscences, if they teach us anything, reiterate the old-time tale that "man is but dust, the flower of the field and a breath." Yet, though they remind us so forcibly of our mortality, they teach us how honorable the briefest life may be, if devoted to a useful calling and consecrated to a holy purpose. In the recent language of Stuart Mill: "Nor let any one be discouraged by what may seem, in moments of despondency, the lack of time and of opportunity. Those who know how to employ opportunities will often find that they can create them, and what we achieve depends less upon the amount of time we possess than on the use we make of that time."

It is in no hackneyed phrase that I say ours is a noble professson; but if we would attain honor and emolument in it, we must sacrifice early and often upon the altar of Æsculapius. The world is full of poor physicians, but in the upper ranks of the profession there is abundant room. A determined purpose and untiring industry will insure us admittance there. And when the days of our probation have passed and we enter the higher professional arena, we may enter the lists and break a lance to good purpose. The foe with whom our conflict is is worthy of our steel; and in the hand to hand encounters of professional life, if we win (and win many a time we do), how ennobling is the thought that we have, under the great God, been instrumental in assuaging human agony, in palliating dire disease, in saving human life. And if we fail, as when in

fancy the hoofs of the pale horse click beside us, or the skeleton fingers follow ours with its knife, shall we despair? No! a thousand times no! For in the direst hours of defeat, when the heavens are black above us, there will still be the proud consciousness that we have succumbed only to the Conqueror of Conquerors.

NUTRITION IN DISEASE.

BY G. P. CONN, M. D.

MR. PRESIDENT AND FELLOWS:

Within the last few years the careful trial of the different methods of treatment, whether rational or not, has done much to elucidate and enlighten us as to the hygienic measures necessary to preserve health, and to the pathology of a number of diseases hitherto, and even now, too often treated with antiphlogistic remedies.

It is self-evident that in all diseases we cannot too closely watch the workings of the great vital organs, nor too carefully note the condition of the ganglionic nerve-centres, or that of digestion, assimilation and nutrition; for by the harmony and perfection of each part in its proper sphere, is accomplished that mysterious phenomenon we call life.

The progress of medical science has been such that great changes have been made, even within the memory of the present generation; and the physician who, at the present time, attempts or expects to effect a cure of a constitutional malady by strictly local remedies (although such auxiliaries may be valuable to allay some prominent symptom which may be distressing to the patient and rendering our general treatment abortive), must have his mind blinded and narrowed by that egotism which specialism

always engenders, or he has failed to keep pace with the true progress of the profession.

Those of us who have heard the late Professor Childs so eloquently dwell upon his favorite theory of treating disease upon general principles, have, often, when meeting one whose mind is ever seeking after special remedies and advocating special treatment, been thankful to have received in our pupilage as good advice as that. The practice of medicine implies: First, a knowledge of the human system in its normal condition; second, an ability to detect any palpable deviation, organic or functional, whether it arise from congenital, hereditary or accidental causes; and, thirdly, from reason and experience to direct the administration of therapeutical remedies. from our extensive *materia medica*, and from such agents as are designedly necessary for the support of our existence.

Chomel defines the art of medicine to be "the application of good sense to the treatment of disease," adding that "a knowledge of disease is indispensable, but that good sense (which is more uncommon than common sense), ranks first." We may infer from this that it is an ability to understand the wonderful intricacy of the functions of nature, and the immutable laws which govern her decrees.

As surgeons we are ready to accept nature as an all-powerful physician, competent to heal injuries, whether natural, accidental, or from the judicious use of instruments; but the great mass of the people are but too willing to ascribe almost supernatural power to drugs, in the cure of disease, forgetting or ignoring that *vis medicatrix naturæ*, which is the basis of all our cures. Frankly, I would say we are prone to follow in their lead, and by tacit consent to their views, render ourselves culpable for their erroneous convictions. However this may be, I leave it to your good sense for consideration, and ask your indulgence for a few moments to a topic suggested by the

foregoing reflections, namely: Nutrition, and its importance in the treatment of disease.

I am aware that, in presenting this topic to your notice, the time which can be allowed for the reading of a report only enables me to touch upon some of the more prominent points. Neither do I flatter myself that I can bring before you new ideas, for the subject is as old as the father of medicine, being one of the fundamental principles of our profession.

In the abstract, nutrition implies anything that nourishes, but in medicine signifies the sum total of all the functions which in any way support life, or has any power directly or indirectly, to prolong our existence, being our opponent to death, and that vital power by which growth and reproduction are produced. Death by slow asthenia or starvation presents the same phenomena, and will occur sooner or later, whenever the losses which the blood sustains in supplying the elements to the solids are not repaired by aliment in sufficient quantity and quality.

In acute diseases, especially those of short duration, like the common catarrhal complaints peculiar to our climate, it matters little in otherwise healthy constitutions whether attention be paid to the ingestion of food or not, as nature wisely takes away the appetite until the disturbance is removed; but in chronic difficulties, and those which must necessarily be of considerable duration, unless attention is particularly called to the nutritive functions, our medicines may be directed with the most consummate skill and administered with all that assiduity of which kind friends and vigilant nurses are capable, yet we shall often be pained at the result and our expectations of an ultimate recovery be unrealized. As the strength of an organ depends upon the steady repair of its losses, the assimilation of new material, or the maintenance of its normal state of organization by due nutritive agents, so when its nourish-

ment fails its structure is impaired, and the ability to perform its natural function is diminished. Food is the natural stimulus of the stomach, and if withheld for any great length of time its structure becomes so impaired that it takes no cognizance of the usual warnings of nature, and a person may actually die of starvation without having experienced any sense of hunger.

Flint says: "In all diseases, more or less of the morbid phenomena present arise from starvation, and these phenomena are prominent and grave in proportion to the degree in which either alimentation or assimilation is defective." Chossat, in referring to the causes of death, thus remarks: "Starvation is a cause of death marching silently in front with every disease in which alimentation falls below the natural standard. It reaches its termination sometimes sooner and sometimes later than the disease which it covertly accompanies, and it may supersede the disease of which at first it was merely an incidental element."

We may lay it down as a practical fact that any affection which does not compromise directly the function of the heart and lungs, cannot produce death so long as the nutrition of the body is maintained to a point compatible with life; and unless the disease involve an insuperable obstacle to the ingestion of food or its assimilation, we can, if particularly attended to from its inception, so sustain a healthy standard of nutrition that the structure of these vital organs will not become seriously impaired. Again, if inanition is not the necessary effect of the existing disease, but is due to insufficient alimentation, starvation will cause death, though the progress of the disease *per se* be favorable, and we can easily see that at first "it was merely an incidental element."

Our inability upon all occasions to fully appreciate the efforts of nature in the cure of disease, must always render

our notions with respect to the powers of art vague and liable to numerous errors and multiplied deceptions. The best medication is that which combats the cause of the evil without deranging the sources of life, which seconds nutrition and does not suspend it. If a man requires for nutriment a mixture, in suitable proportions, of albumen, gluten and sugar, of what avail is it to administer simply water, holding in solution a bitter and non-assimilative principle? Perhaps you may thus be able to kill the disease, but you will at the same time famish the patient and and destroy him by inanition.

Nutriment must vary according to the species, the individual, the manners and customs. All vegetables do not flourish in the same soil—some languish where others thrive; animals are not all carnivorous, neither is man nourished, in all situations of life, in the same manner. The food of the adult would be indigestible, therefore a poison, to the infant; while the food of the infant would be insufficient and debilitating to the youth. In health, the best diet is that which suffices our digestion and our daily wants, and the same rule holds good in sickness, subject to such modifications as the daily intercourse with our patient should suggest; for, in the first case, the craving of a healthy but empty stomach would be a good and sufficient guide, while in the latter our feeble and debilitated patient, worn out by long fasting, mental anxiety and pain, will have but little of this to pilot him, and must depend on his physician for advice under such circumstances.

Life may be defined as the principle or power by which the system preserves its own integrity unimpaired, and its several parts from decomposition amidst the action of surrounding agents, while it possesses the power to act upon things foreign to itself, assimilate them to its nature, and appropriate them to the supply of its exigencies or to redress its injuries. This living principle in nature is pre-

served by an assimilative circle of change, reparation and ejection, continually going on, whereby whatever has become effete and prejudicial is removed, and new material is assimilated to compensate for the waste.

Nutrition is the laboratory of life and development. Hunger is a poison which corrodes and destroys. The ultimate loss of whatever has become worthless is a vital one, as well as the giving of new life to elements which a moment before were foreign substances; and as all material was once and only once created, so too nothing is lost. It is true that "dust we are and to dust we must return," still there is no such a thing as annihilation. A plant or animal dies, but the elements of which it is composed are not lost. It passes into dust, gases and vapor, is really resolved into its original elements, is ready to form new plants, new animals, and the change is complete.

The nutrition of animal and vegetable life, though possessing very many characteristics in common and in a degree dependent upon each other, are widely different in their chemical effects and positive agencies; for any substance to be fitted for the nourishment of animal life, must be of an organized structure itself in order to render it soluble in the juices of the stomach, while the unorganized elements of the mineral kingdom, combining with the gases of the atmosphere, under the influence of light, heat and moisture, furnish the materials on which vegetable life and growth depend.

We know of no mineral, or unorganized material on which animals can sustain life, though we read of savages eating clay and earth to appease the cravings of extreme hunger, and often meet with analogous instances in the diseased and unnatural appetite of those suffering from malassimilation in chlorosis.

Again, it is a well established fact that the growth and development of vegetables depend upon the elimination

of oxygen, which is separated and given off from the other component parts of its nourishment, while on the other hand the life of animals exhibits itself in the continual absorption of oxygen and its combination with certain component parts of their organization. Therefore one great end served by the vegetable kingdom in the wonderful economy of the creation, seems to be to transmute and prepare the substances of the earth to be fitted for animal food.

The earth, the air, and the water are absorbed by the plants and serve as food to them; by the powerful chemistry of vital action, are subsequently transmuted into the various organic principles of vegetable life. These products supply the food of the greater number of animals; these animals in turn become the prey of other animals which are carnivorous, and the change which is written upon the face of all things is ever wisely going on, although unrealized by countless myriads of animated organizations, until death finally resolves all living things into their primitive elements, in obedience to the original law of nature.

To secure full and harmonious exhibition of the great organic changes within the body, the functions of assimilation, secretion and excretion, must be regularly performed; we must have fresh air to breathe, exercise of mind and body for a healthy circulation, raiment to retain the natural standard of heat, and vital force (another synonym for life), to use and direct all these agents for their true purpose.

Thus we have rapidly glanced at the successive changes necessary to furnish the organized food for man's existence, and now let us take up some of the prominent points in which these facts, which are patent to all, are applicable to some of our common forms of disease.

The class of diseases which naturally would suggest itself first, as the result of defective nutrition, is that in which from hereditary or other causes, a strumous diathesis may be noticeable, and our advice is often sought by and for

those who have a predisposition to some form of disease arising from this abnormal condition.

In our most populous cities may be observed in and about the children's hospital and public dispensaries, a great number of children with large heads, tumid abdomens and pasty complexions; whose spines are scarce strong enough to support their bodies, who are slow in intellect and backward in speech, and who have reached the age of sixteen or eighteen months, without having shown any desire to take to their feet. This seems enough, but we may add without imagination, infantile hydrocephalus, rachitis, with its attendant distortion and deformity, morbus coxarius, mollities ossium, purpura and a nosological catalogue of diseases of the skin, which are very much simplified when we diagnose the etiology, as well as the pathology.

It is true that, as a class, these innocent unfortunates in mind and body are reared amidst the enervating influences of poverty, crime and degradation, still we all recognize these characteristics as occurring even within our circle of country practice, where green fields, sunny hillsides and pure water are to be found on every side, and can only be remedied by the improvement of the general health, although in distortion, the application of simple mechanical means may aid in the accomplishment of this purpose, so long as it does not interfere with the natural and vital functions of life.

Our remedial agents must be directed to the removal of the cause of the evil, rather than its effects, and as there is every reason to believe in many of these troubles, that the nutrition of bone is the most at fault, we must do all we can to strengthen the assimilative powers, and enjoin such diet as contains the most phosphate of lime. In scurvy, we may ransack all nature in vain for a remedy, unless it combine with the food or medicine the anti-scorbutic; so in

diseases of this nature we must supply the calcareous salt or all our professional efforts will fail.

Dr. Budd, of the Bristol Royal Infirmary, several years ago, suggested the propriety of combining calcareous salts with certain articles of food adapted to the habits and age of the patient, and on consultation by an eminent dentist relative to a child which had reached the age of two years without any signs of dentition, recommended that the aliment of the little patient should contain the peculiar form of lime derived from teeth, with a view of assisting nature in her work. This was carried into effect in this and other cases with a happy result.

M. Piory, in a more recent medical journal, states that it has long been his habit to administer phosphate of lime with great advantage to rickety patients, suffering from curvature of the spinal column, in the form of filings from fresh bones. About one ounce is given daily, either in new milk, or better still, in rice milk, which effectually disguises all disagreeable taste, which, with a highly nutritious diet, simultaneously employed, has proved efficacious in many cases.

In ophthalmia of strumous origin, if we lose sight of the fact that large, well ventilated sleeping apartments, exercise in the open air, and plenty of the most nutritious food are necessary, our medication will not in all probability benefit our reputation.

In cases of anæmia we observe that the peculiar fitness of any substance ingested, whether it is food or medicine, for its final destination, is not the only thing to be thought of, for iron may irritate the mucous membrane so as to cause the evacuations to become black, slimy and irregular, and our patient will remain as anæmic as ever. If we can get iron to improve the condition of the alimentary canal, so that the stools, from being scanty, scybalous and mucous, consisting mainly of gas and half digested food, becomes

natural and regular, then the body is renewed by fresh nutriment, and strength and development are rapidly reinstated.

It is easy enough to observe that a particular class of medicines and food are indicated, but its capacity for entering the circulation must be taken into account, for the blood is the vehicle and medium by which all the elements are carried to the different tissues for which they are intended. Iron may be the chief medicinal agent we think of when we meet an anæmic patient, but is by no means always the first or even the best remedy when the blood disces are deficient from faulty nutrition.

I recollect in reading a report of Dr. Chambers' clinical lectures at the St. Mary's School, he related, that while a student he noted down as a paradox, in three cases, salts and senna acted as a tonic, when iron and bark had previously failed; yet he could not find an author who assigned any particular tonic action to purgatives. He said in reference to nutrition: "Until you have removed the sluggish state of the portal circulation, which does nothing but secrete mucous and obstruct absorption, you cannot get the protein compounds taken up, and they form a much more important part of the blood globules than even iron."

The experiments of Bernard, Lehmann and Dr. Bence Jones, have done much towards increasing our knowledge of the pathology of diabetis, in which authors generally agree we can do much more with proper food and pure air, than by medication.

Dr. Pavy has experimented with the saccharine product of diabetic urine, until he is confident it is a specific form, being different from all the other modifications of glucose; and he agrees with others who have given special attention to this point, that although most of the compounds containing starch and sugar, when used as food by diabetic patients, increase the quantity of glucose, yet diabetic su-

gar cannot be generated from sugar of milk, which adds a most valuable article to our bill of fare, for a draught of cool, fresh milk is next to pure water to quench thirst and allay febrile excitement; not only in diabetis but in all forms of fever we can relieve extreme thirst and furnish nutriment at the same time.

While referring to a milk diet, you will allow me to recall to your minds the case of a late member of this Society, who for more than forty years was indefatigable in his able and earnest efforts to elevate the dignity of our profession in New Hampshire, nor should we forget in cases of a similar character the success which attended Dr. Twitchell's endeavors to assist nature by alimentation, seconded by that powerful and indomitable will, which always characterized his actions whether professional or otherwise. We understand it to have been Dr. Twitchell's theory, that we take too much carbon into our system, which operates as a stimulant to develope scrofulous or malignant disease, which may be latent in our organization, and he determined to live from that time upon an exclusive bread and milk diet. The result of this plan of treatment you are all familiar with, and, in 1849, more than ten years after he was first attacked, and four or five after he had submitted to two operations for its removal, Dr. Bowditch enthusiastically referred to his case, then apparently well, as "one who eats to live and does not live to eat."

That it requires a degree of moral courage to carry out such a course of treatment, that we may not expect to find in one less vigorous in intellect, or less endowed with that mental and physical stamina, which enables man to meet extraordinary events in life without fear, I am willing to admit, but if we have the full confidence of our patient, we certainly ought to exert an influence and instruct him in regard to diet and regimen, so that he will follow our advice quite as readily as in medication.

It may not be inappropriate to refer to that abnormal condition of the capillaries which constitutes purpura, and although we may probably never be able to detect what this specific alteration in the cell growth is, any more than we can in struma or cancer, yet it is theoretically true that the blood becomes deficient in that peculiar plastic material on which the capillaries draw for their nutrition, and the circumstances that produce and aggravate it, such as deficient or bad food, overwork, cold, dampness and darkness, irregularities of life, exhausting and debilitating disease, like typhoid and ship fever, all go to support the theory of defective and depressed assimilative powers. When this condition occurs from a congenital hemorrhagic diathesis, we can do but little to avert that death which must close the scene; but when it is accidental, in the course of other disease, like typhoid fever, we can restrain the bleeding by styptic remedies, and often prevent its recurrence with proper food. All of us have often seen patients about the twenty-third day in the progress of typhoid fever, suddenly reaching the climax of the disease, have hemorrhage from the bowels, and sometimes from the mucous membrane in other parts of the body.

I well remember one case which impressed my mind very forcibly, not only with the severity of the symptoms, but with the idea that the unnatural promptings of nature, though the mind may be under the cloud of delirium, should not be disregarded, though opposed to all recognized principles and dietetic formulas. The patient was bleeding from the mucous membrane lining the alimentary canal and air passages; ecchymosis of the surface of the body had taken place to such a degree, that he was a horrible sight to behold, and for the comfort of others was removed into a large, airy room outside the ward. Brandy and turpentine soon restrained the hemorrhage, and nutritious food prevented its return and brought him on his feet

again. I was not more surprised that this man recovered than at the diet he was unwittingly allowed to have at that most critical period. Being unable to understand English, one of his own countrymen was detailed to attend him through the night, who proved to be one of nature's own, having none of the notions of modern nurses, for on the patient refusing to take the extract of beef and other things which had been prepared for him, he got a ration of pork and beans from the cook room, sat down by the bedside and fed them to him. The next morning the steward asked the nurse why he gave the patient beans. The reply was: "The patient kept asking for them, and as every body said he could not get well, I thought a good 'square meal' would do no harm." Strange to say, the patient was much better in the morning and comparatively rational; still he said beans tasted better than beef tea. I do not intend by this, to be understood that it is always best to let a patient have his own way, but who can say that if the cravings of this man's stomach, as it appeared to him during a momentary subsidence of his mental excitement, had been disregarded, it ever would have given warning of hunger again, and may we not more frequently consult the feelings of our patients at such critical periods than is generally done?

In diptheria, the local and antiphlogistic treatment which was used a few years since has given way to more rational ideas. The irritating influences of pungent and astringent gargles, caustic to the throat, with powerful alteratives and cathartics to subdue the fever, are no longer a terror to the child, nor a death-like spectre to the mother, for the inflammatory symptoms will take care of themselves as naturally as does the febrile excitement in measles or chicken pox, if you will only raise the standard of vital action, with stimulants, tonics and proper food. The local manifestations about the throat, the pain, chills and fever, are only

so many sentinels posted in open field, whereby we may know our enemy by his skirmish line.

Without taking more of your time in the consideration of particular diseases, let us turn for a moment to some points relative to the selection of a proper diet for the sick, for in a majority of cases our medication is nothing more than to assist nature to correct the secretive or excretive functions, so that assimilation may be naturally exercised. We must look to the quality, as well as the quantity of food, for the essential elements of all the different tissues must be supplied.

Dr. S. B. Hunt, in an able paper upon alimentation, says: "Starvation is a comparative term. We can starve a muscle by withholding nitrogen. We can starve the fats of the body and destroy the animal heat by withholding carbon. So, too, we can starve the brain by withholding phosphorus, and starve the blood by failing to supply it with those salts of lime, potash, soda, iron and magnesia, which are essential to its healthy condition. Just how these salts exert their power is not known, but we do know that when they are withheld the blood globule becomes pale and irregular in form, and starvation diseases are developed. Without these nitrogen no longer builds up the muscle, and carbon fails to maintain the animal heat."

The experiments of Majendie, and more recently of Dr. Hammond, proved conclusively that animals fed solely upon non-nitrogenized substances will quickly pine away and die, and the famous Gelatine Commission in Paris long ago showed that article of diet to be sadly inadequate of itself to nourish and invigorate the body. Gastritis, diarrhœa, colic, pains in the bowels, and a whole train of morbid symptoms, are the inevitable consequences of an insipid saccharine and mucilaginous diet, and the people who, from necessity or otherwise, are obliged to subsist upon such

food, or upon a scanty allowance, or upon such refuse articles as are unfit to supply the wants of the body, are soon reduced in strength and debilitated in mind. Disease is sure to follow, and that of a virulent character. We see this among the lower order of animals, and, although our farmers may be ignorant of the cause of those epidemics which so often break out with such mortality among the cattle near large cities, yet it is easy to see that this calamity may be dated from the period when our economists advised the substitution of grains from distilleries, oil cake—in short, partially decomposed aliment in the place of hay.

A few years since the farmers of New Hampshire were fearful that pleuro-pneumonia would be introduced among their herds, from contamination with diseased cattle from other states; yet it was only in a few instances that it took effect, for as soon as the influences of wholesome food, pure air and fresh water were felt, the disease soon disappeared. Too much cannot be said of these influences upon all animal organizations, and for the sick we do but half our duty unless we see that proper measures are adopted to secure all this for our patients.

People are not so afraid of water and pure air as many of you present can testify they once were, but we do meet those who still believe disease must be starved out, and who will contest the ground inch by inch in favor of fasting until the appetite returns. As I have said, this may do in diseases of short duration, but we must urge the importance of food suitable to the age and condition of the patient in those of longer continuation. Without it the best of care and medication will not avail, and the horrible suffering consequent to that aphthous condition incident to a process of slow starvation, is terrible as well as incurable.

Science has done so much towards perfecting dietetic compounds that at the present day we have scarce the shadow of an excuse for withholding from the sick the nu-

tritive elements necessary to redress the injuries to nature and sustain the vital powers. In Europe it has been the study of eminent and practical men for some years to perfect articles of diet; also, the medicinal means of causing them to be assimilated, and the reports of their success render them worthy of consideration.

Dr. Dobell, of the Royal Hospital for the diseases of the chest, gives a tabulated statement of over two hundred cases of phthisis which have been treated with the pancreatic emulsion (which originated with Moore and Savory), with results realized which exceeded the expectations of the most sanguine. Other physicians speak in terms of the highest praise of this preparation, and say it can be administered with decided benefit, even in hopeless cases, having the effect to improve digestion and retard the progress of the disease, so as to give comparative comfort during the last stages of this scourge of our climate.

Cod-liver-oil has long been used for the same purpose, oftentimes with decided success, but, from its nauseating and unpalatable taste, our chemists have sought to improve upon the natural product until, in some instances, but very little of its original composition can be found, and though it may be more palatable to the taste, it is nearly inert as a medicinal or dietetic agent. There is no doubt but in its natural state it is a valuable remedy, and the French chemists have succeeded in producing an extract in pill form which as a medicine is far superior to any of the rectified oil in the market, and is nearly or quite as nutritious. The extract contains prophylamine, ammonia and potash, which the oil does not, and a larger per cent. of phosphorus, soda, lime and other salts. This extract, so far as my experience has been, shows a wonderful adaptability to the wants of the system in cases of strumous origin, such as enlarged and ulcerated glands about the neck, and scrofulous ulcers of the extremities.

I have called your attention to the fact that a milk diet has sometimes a most happy effect in arresting some forms of malignant disease, and our professional friends in France claim to have had unusual success with it as a remedial agent in the treatment of Bright's disease, when resorted to before serious organic lesions have occurred. Milk contains more of the essential elements of nutrition than any other single article of food, and perhaps fulfils the indications required in a large proportion of cases of acute disease, when a liquid and concentrated form of diet must be administered, better than anything else. Yet by combination with farinaceous substances or alternating with animal broth or extract of beef, we may render a far more efficient support.

The concentration of nutritive elements oftentimes is one of great practical importance, as the digestive and assimilative powers of the human system are limited even in health, and in disease we find it necessary to reduce the volume of food to its least possible bulk, therefore some form of animal food seems best adapted when small quantities of concentrated aliment are required.

We all fully understand that food, whether animal or vegetable, cannot nourish and invigorate the body until, by the process of digestion, it becomes fitted to enter into the circulation; and this change by catalysis, which aliment undergoes when received into the stomach, has interested the profession ever since it had any claims to be a science. Since Beaumont and others have demonstrated the presence and use of the gastric fluids, there have been repeated experiments made looking to artificial digestion, in order to secure a medicinal agent to aid in digestion, also an organized substance, artificially made, ready to be received immediately into the circulation. The result has been to give us, first, pepsin, a most valuable adjuvant to aid the stomach in digestion; and second, peptone, which is a

solution of the muscular fibre of beef in pepsin, retaining all the elementary principles of nutrition, instead of only a part, as we get them in beef tea, broth and extract, which is very generally used.

Dr. Graves, who inaugurated a very great reform in the treatment of fever, is said to have been led to appreciate the importance of ailmentation in cases of continued fever, from the chance remark of a shrewd practitioner from the country, who said in his practice patients generally got well if he could prevent them from starving to death.

Now there are few practitioners at the present day who do not recognize the importance of a nourishing diet and sustaining treatment in all forms of essential fever, but it is of no less importance to prevent death by starvation in all other forms of disease.

In the language of Prof. Flint: "If to die by slow asthenia be, often, virtually to starve to death, then, no matter what the disease may be, it is an object of fundamental importance to promote, as far as practicable, the assimilation of food," for in all diseases, however trivial in character, there is more or less depression of the vital action, and a tendency towards asthenia, sooner or later, in its progress.

Gentlemen: Time and your patience will not allow me to continue this paper to a greater length, and I am fully aware of its unfinished, discursive and rambling character. However, if it may serve to bring out any new thought or theory from others in this Society whose years of experience far outnumber mine, whereby the wonderful power of nature, assisted by rational and consistent means, developed by the hand of art, can be rendered more efficient in treating certain forms of disease, the end for which it was written will have been accomplished.

OBITUARY NOTICE OF DR. JOHN CLOUGH.

BY ADONIRAM SMALLEY, M. D.

Dr. John Clough, a worthy member and former president of this society, died October 5, 1869. He was born in New London, New Hampshire, January 31, 1801, having entered the sixty-ninth year of his age. His grandfather emigrated from Londonderry, on the Evergreen Isle, and settled in Derry, New Hampshire. From New London his father removed to Sunapee, when the Doctor was about eight years old, where he spent the remainder of his minority. He was early left without paternal care. His father died in the service of his country during the war of 1812–15. He was thus left without money, without influential friends; but with willing hands, an active brain and a hopeful temperament, undaunted by the difficulties with which he was surrounded. His self-reliance, perseverance and fortitude were the guiding star of his hopes and aspirations.

Probably at no period of his life were the sterling qualities, perseverance and stability of purpose, which characterized his subsequent career, called more sternly into requisition than in those early years of toil and self-dependence. His preliminary education was obtained at the district school of those early times, with a term or two at the high school of Newport. He studied medicine with Dr. Nichols, of Springfield, and graduated at Dartmouth Medical School in 1829. He commenced practice at Enfield

the same year, where, by his energy and perseverance, he soon obtained a wide practice, which he pursued twenty-six years, when he removed to Lebanon, where he met with equal success till laid aside by declining health.

In 1833 he married Helena Clough, the result of which marriage was three children, of whom one survives him. His first wife died in 1848, when, in 1850, he was married to Widow Harriet Martin Smith, who still lives to mourn his loss. He represented the town of Enfield in the Legislature one term, and was twice elected to the Senate from District No. 11.

As a physician he gained the confidence and respect of the community by a prompt and faithful attention to his patients, and by a sound judgment and practical skill which he exhibited in the treatment of disease. Plain and direct in his manner, he made no use of the little artifices so often employed by quacks to win popular favor, and especially he had a hearty contempt for all those grosser practices which give a profitable notoriety. He was ever trustful and truthful with his professional brethren, which secured their entire confidence; in fact, the basis of his character was an unswerving regard for truth. He was true to himself, true to his profession, true to his associates in every relation of life, true to his convictions of right and wrong, regardless of any self interest which would seem to come in the way. It is not difficult for any of us who knew him well to analyze the character of our deceased friend. He had no concealments of matters proper to be known. We saw him as he was, the upright Christian physician. He was emphatically the carver of his own fortune. He was one of that number who have risen to position by virtue of those intrinsic qualities that are wholly incompatible with failure. Early disciplined in the rigid school of self-dependence and unaided by those extraneous influences which, while they smooth the pathway

and lighten the responsibilities of youth, only tend to soften the muscle and weaken the mental and moral powers of man, he developed an independence of thought and energy of purpose which constituted the foundation of his success. It is not therefore surprising that he should have outstripped such as had learned to rely upon parental support, upon influence and patronage transferred from a senior, or a reputation manufactured by influential friends. It is the early storms that harden the grain of the sapling and prepare it to resist the severer gales of winter. The vine, trained to the trellis, acquires no self-sustaining power; so virtue and intellect languish in the great arm-chair of patrimonial wealth and family position. Few comparatively of the sons of affluence have ever contributed to those great enterprises that have made modern civilization what it is. The bright names that have lit up the highways of science, literature and the arts, are those who have struggled through long years of persevering industry and self-reliance.

Our profession, second to none in its relations to the prosperity and welfare of the world, and foremost in the multitude and magnitude of its works of charity and mercy, has furnished its fair proportion of those vigorous minds who have constituted and adorned the true nobility of this or any other age. Stationed as we are at the two great portals of human life, to usher man into existence, watch over his welfare, alleviate his thousand ills, "alike to guard and heal;" and finally, when powerless to prolong his stay, attend him down to the dark river and smooth his passage out. The great and good have found within the sphere of our mission ample scope for the exercise of their profoundest wisdom, their most sublime virtues. As we delight to honor while living, so in death let us cherish the memory of those who have honored and adorned our chosen and beloved profession.